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USSR Report

AGRICULTURE

No. 1355

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MAJOR CROP PROGRESS AND WEATHER REPORTING

BORSHCH DISCUSSES PROGRESS OF RSFSR HARVEST

Moscow SOVETSKAYA ROSSIYA in Russian 18 Aug 82 p 1

[Article by S. F. Borshch, chief of the main board of the RSFSR Ministry of Agriculture: "Efficient Harvest Rhythm"]

[Text] Harvest work is spreading farther and farther throughout the republic. The farms of all economic rayons of the Russian Federation are mowing and threshing grains. Following the Northern Caucasus, whose kolkhozes and sovkhozes are completing the harvest work, the grain has been harvested from almost half of the area in the Volga region. Despite the difficult weather conditions, the rates of work are being increased by the farmers of the central chernozem area, who have raised a fairly good crop. The combines have gone out onto the steppe expanses of the southern Urals and Siberia.

In the republic as a whole as of 16 August more than 30 million hectares of grain and pulse crops had been mowed, or about 44 percent of the plan. This year's harvest is proceeding under the motto, "preserve everything that has been raised," and the machine operators are trying to close off all channels for losses of grain during threshing and transportation.

Taking into account the fact that the weather in a number of rayons of the republic is hampering the harvest, party, soviet and agricultural agencies as well as managers and specialists of the kolkhozes and sovkhozes are taking measures so that under difficult conditions they can still maximally increase the productivity of the sets of equipment and improve the quality of the harvest. The reapers and combines have been equipped with devices for lodged and low-growing grains, and, as a rule, the machine opertors are working according to the special project method.

The work experience accumulated on the farms of the southern zone of the republic is being extensively disseminated on the fields of Russia. The initiators of the socialist competition for a rapid harvest without losses -- the Saratov farmers -- have threshed more than half of the area planted in grain crops. The farms of the oblast are devoting attention to reliable preservation of the harvest that has been raised. They are providing for special supervision of the selection and sorting of the grain with high bread-baking qualities.

Each day the harvest produces its heroes. The Pushkinskiy Sovkhoz in Sovetskiy Rayon has resolved to sell the state 13,000 tons of grain -- the plan for 2 years! Half of this amount has already been sent from the farms to the elevators. The same commitment was made by the Leninskiy Put' Kolkhoz in Engel'sskiy Rayon. But the example of the leading workers is not being followed everywhere. In a number of rayons there is a large time interval between mowing and threshing the grain crops. And this can lead to losses of the harvest. In Volgograd and Voronezh oblasts a considerable proportion of the mowed grain is left in the swathes for a long time.

It is necessary to increase the rates of the harvest and to organize more efficiently the activity of the harvest conveyor from the field to the threshing floor, especially since the time for winter planting has come to the majority of the rayons of the republic.

11772
CSO: 1824/536

MAJOR CROP PROGRESS AND WEATHER REPORTING

PROGRESS OF HARVEST AND PLANTING WORK DISCUSSED

Moscow IZVESTIYA in Russian 19 Aug 82 p 1

[Article by O. Pavlov: "On the Country's Fields"]

[Text] According to data of the USSR Central Statistical Administration, by Monday, 16 August, the grain and pulse crops (not including corn) had been mowed on an area of 52.6 million hectares in the country and 85 percent of this area -- 45.1 million hectares -- had been threshed.

Pulse crops have been harvested on an area of 3.1 million hectares, and long-fibered flax -- on an area of 258,000 hectares.

The soil has been prepared for winter crops on an area of 23.3 million hectares, and winter crops have been planted on 3 million hectares.

Agricultural work is proceeding under difficult weather conditions these days. Nonetheless the rates of the harvest are increasing. During the past week the grain crops have been mowed on 11 million hectares and threshed on 12 million hectares. (During the preceding 7 days these figures were 10.1 and 10.7 million hectares, respectively.) One can note that threshing is proceeding at more rapid rates. If one looks at the past 4 weeks, the dynamics are as follows: 6.9, 9.4, 10.7 and 12 million hectares. The weekly rates of threshing are higher than in any of the preceding years (beginning with 1976) except for 1978.

Last week Volgograd Oblast harvested the most grain -- from an area of 675,000 hectares. Not very far behind them at all were the machine operators of Orenburg Oblast -- 676,000 hectares. Let us name several other oblasts that had good results in harvesting last week: Saratov Oblast -- 654,000, Rostov -- 584,000, the Bashkir ASSR -- 421,000, Voronezh Oblast -- 408,000, the Tatar ASSR -- 273,000, Kuybyshev Oblast -- 272,000, Ural Oblast -- 252,000, Gor'kov Oblast -- 245,000 and Ryazan Oblast -- 210,000 hectares.

The sale of grain to the state is continuing. The level of grain procurements is higher than it was last year.

Rostov Oblast is selling its third million ton of grain. Here the grain crops have been threshed on more than 2.4 million hectares.

On Tuesday, 17 August, 1.5 million tons had been shipped to the receiving points of Stavropol'. The plans for depositing grain in the state grain bins have been successfully fulfilled by one-third of the kolkhozes and sovkhozes of the kray. A large amount of grain -- almost 115,000 tons -- has been accepted by the procurement workers from the farms Budennovskiy Rayon, which has fulfilled its annual assignment for the sale of all kinds of grain crops. Grain growers of the kray are filled with resolve to meet their socialist commitments -- to deliver 1.9 million tons of grain to the elevators.

Control over the course of grain procurements and an attitude of intolerance toward losses of it are the most important concern of local soviets and participants in the campaign under the motto "preserve everything that has been raised!"

A number of rayons of the country must appreciably increase the rates of harvest. Autumn is already close and the farms of certain oblasts of the central region of the RSFSR have only become seriously engaged in harvesting grain crops, and the kolkhozes and sovkhozes of the northwest are just beginning this work.

Harvesting pulse crops is very important. The average threshing of peas is higher this year than in a number of previous years. But the rates of harvesting, for instance, in the Russian Federation, are lagging behind those of past years. The threshing is proceeding slowly in Volgo-Vyatskiy, Ural'skiy and especially in Tsentral'nyy rayons of the RSFSR.

The rates of preparing the soil for winter crops increased last work. This work is being completed in Kuybyshev, Ulyanov, Orenburg, Kemerov, Omsk and Tomsk oblasts and the Tatar ASSR. This work is proceeding slowly on the farms of the Volgo-Vyatka, Central Chernozem and Northwestern regions of the RSFSR.

Machine operators of the Kuban' area have begun mass mowing of corn for silage. The technical equipment is being utilized on two shifts. Hundreds of detachments and teams have gone out onto the fields. Sets of equipment for preparing dehydrated feeds are working 24 hours a day.

Summer is coming to a close. But the farmers still have a lot of work to do. And it is very important to recognize the value of each day!

11772
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MID-AUGUST REPORT ON ESTONIAN GRAIN, GRASS HARVEST

Tallinn SOVETSKAYA ESTONIYA in Russian 18 Aug 82 p 1

[Article by L. Tamm: "At the Republic Headquarters"]

[Text] The regular session of the republic Headquarters for Harvesting Grain Crops and Procurement of Feed was held yesterday. The meeting was headed by I. Aamisepp, first deputy minister of agriculture of the Estonian SSR.

Participants at the meeting observed that the biological maturation of grain crops in the fields of the republic is late this year. The total sum of effective temperatures at the beginning of the week was 110 degrees lower than for the corresponding period of last year. Complete maturation of grain crops is expected some eight days later and the harvest is four days behind. Practically all early barley has been harvested and now it is time for winter crops. Winter crops have already been harvested from 10 percent of the area planted to them in Khar'yuskiy Rayon.

Last week grain crops at the republic were harvested on some 15 percent of all planted area, while in Kokhtla-Yarveskiy and Rakvereskiy rayons it was 20 percent. Machine operators in Valgaskiy, Vyruskiy, and Pylvaskiy rayons worked below the average rate of harvesting for the republic. The reason for this was rain.

An inspection showed that the work of the combines can be considered entirely satisfactory. So far losses during harvesting work have been minimal. The weak link is gathering the straw and scuffling the stubble.

For the corresponding period last year straw had already been gathered from 65 percent of the harvested areas, while this year the figure is one-tenth lower. More than half of the straw is still in the fields of Khiyumaaskiy, Valgaskiy, Kokhtla-Yarveskiy, and Tartuskiy rayons.

The republic has more than 13,000 hectares of grass seed fields, but so far the seeds have only been thrashed from 8,500 hectares. The headquarters underscored once more the personal accountability of agronomists for fulfillment of the plan for procurement of grass seed.

During the week second cuttings of grass were made on 15,000 hectares. From the grass mowed 7,000 tons of hay and 13,500 tons of haylage was made and 33,000 tons of bulk green material was ensiled. At the same time the headquarters observed that many farms which have fulfilled their feed procurement plans have practically stopped this work, which cannot be permitted.

The headquarters recommended that farms step up the pace of harvesting. Weeds are greatly complicating the harvest of winter crops. Therefore, it is better to mow the rye and winter wheat in windrows, weather permitting. The straw must be picked up on the second day after combining.

Strict checks should be made to see that harvest jobs are completed and that immediately after the straw is removed the fields are plowed or scuffled.

The flax harvest must also be stepped up.

11,176
CSO: 1824/540

ESTONIAN GRAIN HARVESTING, WINTER SOWING OPERATIONS

Tallinn SOVETSKAYA ESTONIYA in Russian 1 Sep 82 p 1

[Article under the rubric "Harvest Diary": "Harvesting and Planting — at the Republic Headquarters"]

> [Text] The regular session of the republic Headquarters for Harvesting Grain Crops and Procurement of Feed was held yesterday. The meeting was conducted by I. Aamisepp, first deputy minister of agriculture of the Estonian SSR.

It was noted that the grain harvest last week moved at a much higher pace than earlier. In seven days grain was harvested from 18 percent of the area planted to it. Rye was mowed on more than three-quarters of the planned area. Granaries held 150,000 tons of grain more than on the same date last year.

An inspection showed that grain losses during the harvest are greater in those places where combines cut the stubble too high. The leader in grain yield at present is Paydeskiy Rayon, followed by Rakvereskiy and Vil'yandiskiy rayons.

The harvesting is not going fast enough in Pylvaskiy Rayon, and there are isolated lagging farms in other rayons also. In Khar'yuskiy Rayon, for example, the Khayba and Vazlemma sovkhozes have already completed the grain harvest and their machine operators have been sent to neighboring farms to help gather the harvest there. But in the same rayon the Kakhla and Ravila sovkhozes have scarcely harvested half of the grain area so far. The Orava, Syade, Nymne, and Narva sovkhozes and Ranna Kolkhoz in Pylvaskiy Rayon are lagging behind in the grain harvest. The rayon agroindustrial association must give these farms effective assistance.

The machine operators of Vil'yandiskiy and Kokhtla-Yarveskiy rayons are doing better than others at hauling straw from the fields, while the workers in Khiyumaaskiy, Pylvaskiy, Raplaskiy, and Vyruskiy rayons are doing worse. The pace of stubble scuffling is not satisfactory at many farms.

Now is the optimal time to plant winter rye, but almost one-quarter of the area allocated for winter crops has not been plowed in Khaapsaluskiy, Pylvaskiy, and Valgaskiy rayons.

Flax has been harvested from 51 percent of its area. This work is going too slowly at farms in Valgaskiy Rayon.

Although potato tubers are still not fully ripe, farms must harvest this crop in sufficient volume to meet plans for delivery of potatoes to the cities.

The clover harvest must begin everywhere. It is not tactically correct now to wait for all the buds to mature. This can lead to great seed losses.

Indicators of progress in feed procurement indicate that this work is going best at farms where the plan for feed from grasses has already been fulfilled. Farms which had not fulfilled their plans for feed procurement from grasses hardly worked at all on this last week. Two weeks ago the figure for fulfillment of the feed procurement plan at the Riyziper Sovkhoz was 72 percent, and it was the same at the start of this week.

The headquarters made the following recommendations for the farms:

- significantly increase the pace of grain harvesting this week;
- carry on the clover harvest at full speed;
- by the start of next week each farm should have planted at least half of the area allocated for winter crops;
- the rayon agroindustrial associations must give lagging farms more attention and help with the grain harvest and feed procurement.

Progress of Agricultural Work at Kolkhozes and Sovkhozes of the Estonian SSR on 30 August 1982 (as percentage of plan)

Rayon	Grain Crops Harvested	Winter Grass Planted
KingiseppSkiy	73	6
Khar'yuskiy	71	6
Vil'yandiskiy	70	16
Khaapsaluskiy	66	12
Khiyumaaskiy	66	-
Tartuskiy	64	6
Pyarnuskiy	62	11
Valgaskiy	61	4
Average for Republic	61	9
Paydeskiy	60	7
Raplaskiy	59	4
Yygevaskiy	58	19
Vyruskiy	57	5
Kokhtla-Yarveskiy	56	12
Pylvaskiy	54	5
Rakvereskiy	49	18

Preparation of Feed from Grasses (Converted to Hay) at Kolkhozes and Sovkhozes of the Estonian SSR on 30 August 1982 (as percentage of plan)

Vyruskiy	109
Khiyumaaskiy	105
Khaapsaluskiy	104
Kokhtla-Yarveskiy	104
Rakvereskiy	104
Tartuskiy	102
Yygevaskiy	101
Pyarnuskiy	98
Vil'yandiskiy	98
Average for Republic	98
Paydeskiy	97
Pylvaskiy	96
Valgaskiy	94
Raplaskiy	92
Khar'yuskiy	89
Kingiseppskiy	85

(According to Figures from the Estonian SSR Ministry of Agriculture)

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LIVESTOCK FEED PROCUREMENT

DROUGHT DAMAGES NATURAL HAYFIELDS IN ORENBURG OBLAST

Moscow SOVETSKAYA ROSSIYA in Russian 7 Aug 82 p 1

/Article by I. Filimonov, Orenburg Oblast: "Virgin Land Helped"/

/Excerpts/ There are many examples of a truly business-like and creative approach to the solution of the problem of strengthening the fodder base of animal husbandry in the oblast, although many farms in the Orenburg area, owing to the severe drought, are now under complex conditions. Natural hayfields suffered especially. That is why the amount of hay obtained in Novosergiyevskiy, Oktyabrskiy and Krasnogvardeyskiy Rayons and a dozens of other rayons in the oblast's central and western zones is one-half of the amount obtained last year.

However, farms are doing everything to mow all the land and every scrap of hay is accounted for. Machine operators understand the importance of the tasks entrusted to them and try to prevent losses of fodder reserves and to preserve everything that has been grown in order to provide sections with a solid feed reserve for winter. In the oblast emphasis is placed on an efficient organization of work. To eliminate the downtime of equipment and to see to it that every person works on meadows with the greatest efficiency--this is of concern to all Orenburg farms.

Large complexes and links procure feed. The wages of machine operators and of their assistants in hay mowing are based on the final result and the feed delivered to sections, which greatly contributes to the success of this endeavor. For example, on farms in Totskiy Rayon complexes and links procured two-thirds of the planned amount of hay by the middle of July. The progressive principle of wages also fully proved its value on farms in Buguruslanskiy and Gayskiy Rayons.

Nor are other possibilities of improving the fodder balance on farms missed.

Caravans of machines and powerful tractors loaded with pressed hay can now be found on roads. Virgin land sovkhozes volunteered to help the rayons that suffered from the drought. Adamovskiy, Novoorskiy and four eastern rayons showed understanding for the misfortune that befell their neighbors. They allocated plots, helped to equip field camps and organized the technical servicing of the machines that arrived. The tens of thousands of quintals of coarse feed procured on virgin land markedly improve the feed reserves at the sections of the oblast's central and western zones.

11,439
CSO: 1824/502

LIVESTOCK FEED PROCUREMENT

GEORGIAN FEED PRODUCTION UNSATISFACTORY

Tbilisi ZARYA VOSTOKA in Russian 20 Aug 82

/Article: "The Lag Must Be Overcome Decisively"/

> /Text/ There is an alarming situation with feed procurement in the republic. Although the frequent rain during the entire summer contributed to a rapid growth of grass on natural and cultivated hayfields, at the same time, it hampered the normal operation of units and mowers and hindered the operation of grain combines, which led to a considerable shortage of straw. A great deal of valuable time was lost. Only 773,000 tons of coarse feed, which comprises 53 percent of the annual plan, have been procured on kolkhozes and state farms by the end of the first 10-day period of August. This is 204,000 tons less than procured by the same period last year.

The course of this major agricultural campaign, on which the fate of the wintering of public and private livestock depends, was examined by the board of the Georgian SSR Ministry of Agriculture.

The rayons where an especially serious lag was formed were mentioned at the meeting. They are Khashurskiy, Karelskiy, Goriyskiy, Borzhomskiy, Sagaredzhoyskiy, Tsigeltskaroyskiy, Akhmetskiy, Tsalkskiy, Dushetskiy, Tianetskiy and Kazbegskiy Rayons and the South Osetian Autonomous Oblast.

A total of 27,000 tons of hay less than last year were stacked and credited. Farms in Sagaredzhoyskiy, Tsiteltskaroyskiy, Dushetskiy, Ambrolaurskiy and Onskiy Rayons and in all three autonomous formations have the largest proportion in this deficiency.

Although the haylage procurement plan was fulfilled throughout the republic, public farms in Bogdanovskiy, Sagaredzhoyskiy, Gurdzhaanskiy, Tsalkskiy, Ambrolaurskiy, Abashskiy, Zugdidskiy and Lanchkhutskiy Rayons, the Adzhar ASSR and the South Osetian Autonomous Oblast lag behind in the fulfillment of their plans.

Work on grass meal production is carried out very poorly in Tsiteltskaroyskiy, Abashskiy and Tskhakayevskiy Rayons and in the zone of the city of Tskhaltubo. The output of this valuable type of feed has not begun at all in Khobskiy and Lanchkhutskiy Rayons.

A check showed that not everywhere were people able to set a high level of organization and a skillful maneuver of equipment against unfavorable weather conditions and to use new forms of material incentives for feed getters. The following facts point to this: On a number of farms and even rayons, which suffered from bad weather to the greatest extent, indicators are much better than on neighboring farms, where rain and cold weather caused a smaller damage.

Chairmen of rayon agroindustrial associations reported to the ministry's board for 2 days. There was an impartial discussion of missed opportunities and of potentials that have not been activated. It was noted that, if local bodies had been more efficient, the results would have been much higher.

The board gave a harsh appraisal of the totally unsatisfactory situation with feed procurement. It was recognized that such a situation arose owing to the irresponsible attitude toward this serious state matter on the part of a number of managers of rayon agricultural bodies, kolkhozes and sovkhozes, who do not take effective measures for an increase in the rates of feed procurement and miss days of good weather, preferring to endlessly demand the allocation of coarse feed.

The situation is such that it requires the maximum mobilization of efforts. The remaining days in August and September are a decisive period for the fulfillment of the coarse feed procurement plan. To miss it means to condemn livestock to a hungry wintering.

The board of the Georgian SSR Ministry of Agriculture resolved to declare the period from 15 August to 15 September a shock month for feed procurement.

To help rayons in conducting this monthly campaign and to promptly solve urgent problems, the ministry's executives--from the first deputy minister to senior specialists--were assigned to regions.

The Abkhaz ASSR and the Adzhar ASSR Ministries of Agriculture, the South Osetian Oblast Administration of Agriculture, rayon agroindustrial associations and attached workers were instructed to take drastic measures and with personal responsibility to ensure the overcoming of the lag in feed procurement and the fulfillment of the annual plan.

In the next few days it is necessary to prepare all the appropriate equipment and means of transportation available in the rayon and to assign them for feed procurement. We must widely expand socialist competition among feed getters, give them moral and material incentives and actively involve rayon organizations and students in work on hay mowing and coarse feed procurement. The rayon press should pay maximum attention to an interpretation of feed procurement problems.

The board drew attention to the need to increase the yield of the areas sown with perennial grass, whose number of harvests can be increased to four or five, and to fully utilize such a potential as the mowing of wind protective forest belts, road shoulders, ravines and aerodrome areas. For the purpose of replenishing the feed reserve, it is necessary to maximally utilize industrial and agricultural waste, tender shoots of forest species and all other sources of fodder resources.

An operational staff for managing the course of feed procurement headed by minister G. Mgeladze was established in the Georgian SSR Ministry of Agriculture. A duty schedule was established for staff members, who were entrusted with the obligation to collect information on the course of feed procurement and to promptly solve arising problems.

The board of the Georgian SSR Ministry of Agriculture categorically warned all managers of local agricultural bodies that, in case of a disruption of the feed procurement plan, the question of their personal responsibility will be examined with all seriousness and strictness.

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LIVESTOCK FEED PROCUREMENT

SHORTCOMINGS IN FEED PROCUREMENT IN VLADIMIR OBLAST NOTED

Moscow SEL'SKAYA ZHIZN' in Russian 28 Jul 82 p 1

/Article by Yu. Shtatnov, correspondent of SEL'SKAYA ZHIZN', Vladimir Oblast: "Complexes in Hay Mowing"/

/Excerpts/ The rainy weather and the cold snap at the beginning of summer were reflected in the condition of grass. It was not successful at all and its ripening was prolonged.

"Now, when the hot busy season has arrived, it is important not to let grass stand too long," says G. Kordyukov, chief of the Gorokhovetskiy Rayon Production Administration of Agriculture. "Our farms expect to mow hay in 2 weeks. Then we will be able to replenish the feed reserve with a repeated hay harvest."

To be sure, the plans are good. Only they are not actively implemented everywhere. Kolkhozes and sovkhozes in Aleksandrovskiy, Petushinskiy, Muromskiy and Kolchuginskiy Rayons permit sluggishness and lack of organization. There at the beginning of hay mowing mowers, rakes and pickup presses were in shops. The Agricultural Equipment Association was late with the delivery of some spare parts. The Kirzhachskiy Sovkhoz began the feed procurement season in a very unharmonious way. This is a complex farm scattered over many kilometers. For winter it has to procure 2,200 tons of hay, just as much haylage, 4,400 tons of silage and other feed. A feed procurement detachment headed by experienced reclamation specialist V. Lebezov was established there. However, it tookit too long to gather the necessary speed. Only one-third of the necessary amount of hay and haylage was procured there. True, the silage storage plan was overfulfilled. Apparently, the sovkhoz management is not perturbed by the fact that overripe, especially leguminuous, grass produces low-quality feed.

Nor is the situation better on the Krasnogorbatskiy Sovkhoz in Selivanovskiy Rayon. Other farms procure feed, using advanced methods. But there no one even heard about them. Owing to the breakdowns, which began during the last season, to this day the unit for the preparation of grass meal operates at half capacity.

On some farms wages of feed procurement specialists have not been thought out and socialist competition has been organized poorly.

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CSO: 1824/502

LIVESTOCK FEED PROCUREMENT

LAG IN FEED PROCUREMENT IN VOLOGDA OBLAST SCORED

Moscow PRAVDA in Russian 28 Jul 82 p 1

/Article by PRAVDA's raid brigade: M. Kulakov, head of the editorial department of the newspaper KRASNYY SEVER, A. Aleksandrova, agrochemical engineer at the feed analysis department of the chemicalization station of the Vologda Scientific Production Association for Agrochemical Services to Agriculture, and O. Gadaborshev, PRAVDA correspondent, Vologda Oblast: "Without Allowances for the Weather"/

> /Excerpt/ Responding to the decisions of the May (1982) Plenum of the CPSU Central Committee, rural workers in Vologda Oblast now plan to greatly increase feed production. Spring was late and the cold weather at the beginning of summer inhibited the development of grass and shortened its harvesting time. There is a need for a high level of organization and discipline at all the sections of the feed conveyer in order to overcome difficulties and to abundantly provide livestock with fodder.

In the oblast there are many kolkhozes and sovkhozes where advanced technologies are introduced widely and labor on meadows is organized creatively. In Velikoustyugskiy Rayon the interfarm cost accounting association for feed production established on a share basis operates efficiently on the floodplain of the Yug and the Sukhona. Cooperation made it possible to greatly increase the yield per hectare.

Unfortunately, a proprietary and interested attitude toward this matter is not manifested everywhere. Many kolkhozes and sovkhozes in the oblast began grass harvesting very late, saying that grass did not accumulate the necessary mass. In reality, as facts show, a significant number of farms were poorly prepared for the harvesting campaign. Owing to tardy repairs, dozens of units for the fire drying of grass are inoperative. Many of them operate only during one shift. Other equipment is idle for various reasons. As a result, grass harvesting throughout the oblast lags behind the planned schedule. Hay procurement rates are especially low.

Recently, the oblast party committee heard reports by party members--managers of a number of lagging farms and rayons--on the course of feed procurement and mapped out specific measures to improve the organization of work. This produced an effect. Work on meadows revived significantly. However, an atmosphere of disorganization and carelessness still reigns on some kolkhozes and sovkhozes. For

example, by the day of our arrival the Borisovskiy Sovkhoz in Vologodskiy Rayon fulfilled only 10 percent of the silage storage plan and stacked even less hay. Fodder harvesting mechanisms operate here only during one shift. The active ventilation unit is still being repaired. The unit for the preparation of grass meal is often idle.

"Sometimes green fodder is delivered irregularly and sometimes equipment breaks down," complains S. Nikolayev, operator of a unit for the preparation of grass meal. "What output do we give? Often we process deteriorated grass. Worse than that, a few days ago all our work went to pot, as the saying goes--rain flooded 300 bags of ready meal..."

One remembers how last winter, owing to the shortage of feed, cows had to be kept on a hunger ration there. However, judging by the rates of the harvesting campaign, the lesson did not do any good.

The situation is not better on many kolkhozes and sovkhozes in Vozhegodskiy, Syamzhenskiy, Babushkinskiy and a number of other rayons. The reasons are the same: An inefficient utilization of equipment and of patronage help, irresponsibility and mismanagement. The fate of the undertaken obligations and the forthcoming wintering of livestock largely depend on how quickly the oblast will be able to get rid of these and other shortcomings in the fodder harvesting conveyer.

11,439
CSO: 1824/502

LIVESTOCK FEED PROCUREMENT

SHORTAGE OF EQUIPMENT FOR FEED PROCUREMENT DISCUSSED

Moscow SOVETSKAYA ROSSIYA in Russian 14 Aug 82 p 1

/Article by V. F. Agafonov, chief of the Main Administration of Fodders, Meadows and Pastures of the RSFSR Ministry of Agriculture: "Not To Lower Rates"/

/Text/ This year feed procurement on most of the republic's territory began later than usually. Owing to the cold spring natural and sown grass ripened later. However, despite this last week kolkhozes and sovkhozes succeeded in exceeding the level of last year, which was very rich in terms of the grass stand. In all green fodder has now been mowed from 31 million hectares. With a plan of 15.7 quintals of fodder units per standard head of livestock 5.3 quintals have already been stored. Silage and straw procurements are ahead. According to preliminary estimates, there is every condition to store plenty of feed for animal husbandry.

Work is carried out well in Karelia, Dagestan and Moscow, Kaluga, Kursk, Lipetsk and Tambov Oblasts. In practice, the plans for hay, haylage, vitamin meal and green fodder have been fulfilled and feed procurement is continuing.

The success of this enterprise is mainly ensured by well-prepared equipment and the organization of special links operating according to the brigade contract. A total of 40,000 such links have been established throughout the republic for the procurement period.

In such oblasts as Vologda, Ryazan, Belgorod, Voronezh, Kuybyshev and Penza feed reserves are still replenished slowly. Feed procurement comprises only 20 to 35 percent of the plan. Not only the bad weather is to blame for this. On some farms there is a shortage of equipment and, where it is available, often it operates inefficiently owing to poor organization. The material interest of mowers is not yet strong everywhere.

The overgrowing of natural hay land is a big misfortune in the nonchernozem zone. This process is especially pronounced in Vologda, Novgorod, Pskov and Kostroma Oblasts. There is no equipment capable of operating on the great deal of unsuitable land in these regions. As a rule, such plots are mowed manually. Rural residents enlist the help of city dwellers. Their labor is often unproductive. A great deal of land remains unmowed and is covered with shrubs. We often asked the industry and the Ministry of Machine Building for Animal Husbandry and Fodder Production to organize the production of small-size mowers. To this day, however, there are no practical results.

Feed procurement specialists are very short of another very necessary implement--tractor agitator--especially during this rainy year.

It is necessary to provide kolkhozes and sovkhozes with this complex equipment as soon as possible.

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LIVESTOCK FEED PROCUREMENT

TWO-HARVEST SYSTEM PRACTISED IN NORTH CAUCASUS

Moscow SOVETSKAYA ROSSIYA in Russian 10 Aug 82 p 1

/Article by A. Podol'skiy, North Caucasus: "Economically Profitable"/

/Text/ The rich Ciscaucasian plan now presents all types of field operations to the eye. Combines are slowly moving on the grain field and, where grain crops and green fodder have been harvested, corn is being sown and the second harvest is being established.

Farms in the autonomous republics of North Caucasus occupy mainly irrigated fields with secondary sowings. Heat is sufficient even for three harvests. The frost-free period lasts 180 to 190 days. All this makes it necessary to consider the two-harvest system a norm. Initiative is manifested here in the choice of technology and selection of crops.

A second harvest from the irrigated field is a strong reinforcement for the feed reserve. Kabardino-Balkaria, where the two-harvest system is used quite efficiently, is now also the first in the production of livestock products in its zone.

This spring in North Caucasus does not pamper grain growers with simple solutions. There is frequent rain. In this situation it is important not to permit complacency, saying that, in general, the year is productive. Such a mood can affect the second sowing campaign, which today is hindered by weather conditions, when a prompt maneuver is necessary.

In Kabardino-Balkaria and Dagestan kolkhozes and sovkhozes have already sown two out of three hectares designed for two harvests. So far this work has been half done in Checheno-Ingushetia and North Osetia. Success comes primarily to those that even in bad weather are able to "mow with one hand and to sow with another." In Mayskiy Rayon in Kabardino-Balkaria we visited the fields of the competing Leninsty Kolkhoz and the Krasnaya Niva Kolkhoz. In the last 7 years the output of grain per hectare on these kolkhozes totaled about 45 quintals, including of corn seed grain, 60 quintals. These are gratifying results. Nevertheless, the collectives of these farms persistently continue the search for new means of intensification and successfully utilize repeated sowings.

A hectare of arable land produces even three harvests here. The system where at first winter rape is harvested and then corn is sown and grown ensures 100 to 110 quintals of fodder units--more than 300 rubles of net profit. In another combination, where corn for grain is the second harvest, the profit is 1½ times as high.

The following variant is also profitable economically: winter barley-corn for silage with ears. Using it, the Krasnaya Niva Kolkhoz gathers three harvests. M. M. Klevtsov, chairman of the kolkhoz, showed the fields where sprouts appeared for the third time. This is fodder mustard. Its output will be in November. Usually, it yields 230 quintals of nutritive greens.

To be sure, repeated sowings, raising field cropping to a higher level, also increase the possibilities of animal husbandry.

Fodder rape is widely sown in Dagestan these days. In Checheno-Ingushetia on many thousands of hectares, where, owing to rain, corn is late, the sowing of rape for the late fall reaping season is expanding. The areas sown with mustard and a pea-oat mixture are expanding in Kabardino-Balkaria.

Second and third harvests give a weighty addition to grain and fodder reserves.

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LIVESTOCK FEED PROCUREMENT

IMPROVEMENT IN HAY PROCUREMENT IN KALMYK ASSR URGED

Moscow PRAVDA in Russian 17 Aug 82 p 1

/Article by V. Pankratov, Kalmyk ASSR: "Exposing Feed Storerooms"/

/Excerpt/ "We lag slightly behind our neighbors only in the rates of hay procurement," sums up V. Nikulina, first secretary of the Priyutnenskiy Rayon Party Committee. "On the other hand, we have stored more haylage and silage fodder."

The entire able-bodied population works on the rayon's fields and meadows. Every rural resident took it upon himself to store no less than 2 quintals of hay. Slopes of ravines and other unsuitable land are mowed. The abundant rain that fell in July helped. The steppe turned green as in spring and grass grew.

Machine operators chose the most effective variant--the method of large-group flow utilization of equipment. A total of 213 harvesting transport complexes and detachments were established. With respect to the assignment more than 97 percent of the haylage and about one-half of the hay has already been stored throughout the republic.

"The plan of the first half-year for the deliveries of meat, milk and eggs to the state was overfulfilled," noted V. Nikulin, first secretary of the Kalmyk Oblast Party Committee. "We expect to have 1.3 million tons of coarse feed by the beginning of wintering. This is a 1½-year norm."

When there is feed, the situation is better. The herd of large-horned cattle and sheep increased considerably in the autonomous republic in a year. Trying to provide a satisfied wintering for animals, feed procurement detachments in Yashaltinskiy, Gorodovikovskiy and a number of other rayons work well. Irrigated land produces much fodder. Almost 50,000 hectares of irrigated land have been allocated for fodder crops. Furthermore, estuaries have become the "storeroom" of hay.

However, not everything has been done so that every participant in the harvesting campaign may work with a full return. The rates of work are not high on a number of farms in Oktyabrskiy, Maloderbetovskiy and Priozernyy Rayons. Black land is utilized poorly. In the autonomous republic the gathering of seeds of wild grass has been organized poorly and the necessary concern for the land intended for the grazing of livestock is not shown. Many natural hayfields and pastures are neglected.

Along with grain harvesting the green harvesting campaign demands from rural workers great efforts and the mobilization of all reserves. Farm collectives are trying to procure as much feed as possible and to attain an increase in the production of farm products.

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BRIEFS

FEED PROCUREMENT IN URALS--About 4 million hectares of grass, which is three-fourths of the plan, were mowed in the Ural Economic Region. More than 80 percent of the areas were harvested in Sverdlovsk Oblast and the Udmurt ASSR. Mowers on Chelyabinsk, Perm and Kurgan farms performed two-thirds of the work. By the forthcoming wintering kolkhozes and sovkhozes in the Orenburg area should store 2.3 million tons of feed in terms of fodder units. For now only one-fourth of this amount is available. Almost 750,000 tons of hay, 200,000 tons of haylage and 38,000 tons of grass meal have been procured. Many farms in the oblast are mowing grass under the complicated conditions of the drought year. /Text/ /Moscow SOVETSKAYA ROSSIYA in Russian 7 Aug 82 p 1/ 11,439

CORN HARVESTING IN KALMYKIA--Elista--Farmers in Kalmykia have begun the mass harvesting of corn. There is a continuous flow of motor-tractor trains with ground green fodder from fields to sections of farms in Tselinnyy, Yashaltinskiy and other rayons. Corn is the main silage crop in the steppe kray. This year about 100,000 hectares of land have been allocated for it. Summer rain has promoted a rapid growth of plants. The yield of green fodder exceeds the envisaged yield almost everywhere. The object of the mass competition among machine operators of feed procurement detachments that has expanded in the republic is to harvest the entire corn field rapidly and without losses and to place more than ½ million tons of succulent feed in trenches. /Text/ /Moscow SOVETSKAYA ROSSIYA in Russian 10 Aug 82 p 1/ 11,439

FEED PROCUREMENT IN ALTAY--Barnaul, 21 Jul--The rates of the green harvesting campaign in Altay are increasing. Feed procurement brigades and links deliver 3,000 tons of hay, almost 2,000 tons of grass meal and about 4,000 tons of haylage to storage places in only 1 day. The biggest amount of procured feed is credited to farms in Blagoveshchenskiy, Biyskiy, Yegoryevskiy, Mikhaylovskiy and Petropavlovskiy Rayons. Farmers are trying to reduce the gap between hay mowing and feed storage. The vacated fields are being prepared for repeated sowings. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 22 Jul 82 p 1/ 11,439

SEPARATE FEED PRODUCTION SECTOR--The front of harvesting operations on fields in Altay Kray is ever wider. The reaping campaign has expanded at full speed in piedmont and eastern regions. Wheat is being harvested and threshed and many farms have begun to sell grain to the state. This reaping campaign has one important characteristic. Usually, the intensity of feed procurement work declined at the beginning of the reaping campaign. Now, however, the situation is such that there cannot even be talk of a drop in the rates of the green harvesting campaign. It

is August in the yard, but the stored feed is still insufficient, although, as compared with the corresponding period of last year, the rates of procurement are higher. The rain that fell rectified the sowings of silage and other crops. Therefore, on the kray's farms everything that is possible is done to provide public animal husbandry with a solid feed reserve. For example, in Smolenskiy Rayon feed production has been made a separate sector, which produces tangible results. On the Put' Lenina Sovkhoz the harvesting complex managed by party member V. K. Sokolov in a short time harvested all the sown grass, which produced up to 50 quintals of hay on individual fields. N. V. Medvedev's unregulated link attained a record output. The link leader, an experienced hay stacker, stacked up to 2,000 quintals of hay per day. However, the proper effort at the "green reaping campaign" cannot be observed everywhere in the kray. Feed procurement specialists in Shipunovskiy, Rebrikhinskiy, Petropavlovskiy and some other rayons do not utilize existing potentials. The rates of work are also low here and the quality of feed is not high. Stars are beginning to shine over combine bunkers. The reaping campaign is calling the names of advanced workers. The homeland's bins are receiving Altay's grain and sections, feed. /By V. Vedernikov/ /Text/ /Moscow SOVETSKAYA ROSSIYA in Russian 14 Aug 82 p 1/ 11,439

FEED PROCUREMENT IN TRANS-URALS--Kurgan, 5 Jul--The third 10-day period in July in the Trans-Ural area was marked by heavy rains. They are good for the formation of grain, but hamper the work of feed procurement officials. Nevertheless, on many farms work on meadows is carried out with a high intensity. Machine operators of feed procurement brigades in Almenevskiy, Safakulevskiy, Ketovskiy, Mishkinskiy and other rayons obtained the best results. Almost two-thirds of the hay and of the artificially dried feed, as well as a significant amount of haylage, are in stacks and fodder warehouses here. /By I. Shevchenko/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 6 Aug 82 p 1/ 11,439

PROCUREMENT OF COARSE FEED--Tomsk, 5 Aug--The oblast's advanced farms, despite the complex conditions, fulfilled the assignment for the procurement of coarse feed. For example, the collectives of the Sovkhoz imeni 22 S'yezda KPSS and the Kozhevnikovskiy Sovkhoz in Kozhevnikovskiy Rayon and the Novikovskiy Sovkhoz, the Komsomolets Sovkhoz and the Sovkhoz imeni Kirov in Asinovskiy Rayon take the lead. Farms in Shegarskiy Rayon, where the Rossiya Sovkhoz and the Sovetskiy Sovkhoz have already coped with the assignment, accumulate feed at high rates. Reliable feed reserves have been established on advanced farms in Chainskiy and Tomskiy Rayons. The plan for hay and haylage production has been fulfilled on the Sovkhoz imeni 50-Letiya SSSR and the Rodina Sovkhoz in Tomskiy Rayon. This is the basis for the further growth of productivity of animal husbandry and improvement in the quality of output. /By P. Chernov/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 6 Aug 82 p 1/ 11,439

UNREGULATED FEED PROCUREMENT LINKS--To gather everything that has been grown from fields and to preserve it reliably--this is the task that feed getters in Neftekumskiy Rayon set for themselves. A shock shift of hay, silage and vitamin grass meal procurement was declared there from 1 through 15 August. In particular, during that time no less than 70,000 tons of silage fodder are to be placed in trenches in order to bring its total amount to 100,000 tons. "STAVROPOL'SKAYA PRAVDA." The rumble of tractors on the meadows of the Kop'yevskiy Sovkhoz--the advanced farm of Muromtsevskiy Rayon--does not cease. Two-thirds out of the 4,500 planned

tons of hay are already in stacks. Abundant rain has improved the grass stand. Five unregulated links, 20 men in each, stack hundreds of quintals of hay every day. "OMSKAYA PRAVDA." /Text/ /Moscow SOVETSKAYA ROSSIYA in Russian 14 Aug 82 p 1/ 11,439

RAIN IN NONCHERNOZEM ZONE--Heavy rain fell in the localities near Moscow last week. However, farms in Lyuberetskiy, Domodedovskiy, Leninskiy, Podolskiy, Stupinskiy, Voskresenskiy and Kashirskiy Rayons counteracted the bad weather with organization, a skillful application of advanced technologies, such as active ventilation, preparation of minced hay and chemical preservation of feed. In these rayons the hay procurement plan was fulfilled 60 percent and more. Rainy June introduced amendments into the work plans of many farms in the nonchernozem zone. Having begun to procure hay, in a number of places kolkhozes and sovkhozes were forced to switch over to the preparation of haylage, grass meal and other dehydrated feed. Those that were able to do this quickly and acted depending on specific conditions are the winners. For example, in Kalinin Oblast, along with farms that are confidently engaged in the green reaping campaign in any weather, there are also farms that became confused and were unable to withstand difficulties. Thus, in Staritskiy Rayon at the beginning of July, when the situation on the hayfield was clear and a delay threatened a shortage of feed, 15 out of the 20 available units for the preparation of vitamin meal operated. Moreover, the productivity of most of the operating units was extremely low. On the Iskra Kolkhoz and the Arkhangel'skiy Sovkhoz units for the preparation of vitamin meal operated only according to reports. On the Pravda Kolkhoz units for the preparation of vitamin meal were simply forgotten. Many things are now going on in the July field. The rates of procurement of vegetables and early potatoes are increasing. Tea leaves are being harvested. However, the unfolding reaping campaign and feed procurement are now perhaps the most important. To carry out these operations everywhere, at the best time and without losses is the honorable duty of farmers. /By O. Pavlov/ /Excerpt/ /Moscow IZVESTIYA in Russian 9 Jul 92 p 1/ 11,439

HAY PROCUREMENT NEAR MOSCOW--Moscow, 30 Jul--Farms in the localities near Moscow procured 1 million tons of hay from the first harvest. Rural workers and their patrons from industrial enterprises in Moscow and the oblast attained such a goal for the first time. The good organization of work, maximum utilization of equipment and advanced wage form helped. Grass mowing in the localities near Moscow is continuing. A total of 20,000 mowers united into 2,000 detachments go out to meadows, forest edges and unsuitable land every day. There is every condition to fully obtain a second harvest and on sizable areas even a third one. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 31 Jul 82 p 1/ 11,439

FEED PROCUREMENT IN URALS--Sverdlovsk Oblast--In the Middle Urals it is a rare year when there are no weather surprises. This year during the first half of the summer there was an unbearable drought and during the second half, when hay mowing unfolded on a wide front on all the farms in the oblast, late storms began to thunder. However, even in such a situation many farms are engaged in feed procurement, not deviating from the planned schedules. The oblast's feed procurement specialists have someone to emulate. They have someone from whom they can learn how to work in any weather. Unfortunately, feed procurement does not proceed so regularly everywhere. Smaller hayfield areas than last year have been mowed so far and only two-thirds of the hay procurement plan has been fulfilled. This means that not all farms have been stirred to activity and potentials still exist. /By A. Gushchin/ /Excerpts/ /Moscow TRUD in Russian 10 Aug 82 p 1/ 11,439

CSO: 1824/502

FOOD PROGRAM TASKS FOR MEAT, DAIRY INDUSTRY OUTLINED

Moscow MYASNAYA INDUSTRIYA SSSR in Russian No 7, Jul 82 pp 1-4

/Article by S.F. Antonov, USSR Minister of the Meat and Dairy Industry: "The Food Program and Our Tasks"/

/Excerpts/ The 11th Five-Year Plan calls for the complete satisfaction of the demand for such products as groats, confectionery products, margarine, eggs and fish and for improvements in the supply of meat, milk, vegetable oil and fruit and vegetable products. During the 12th Five-Year Plan, based upon an increase in production, the plans call for substantially raising the consumption of meat, vegetable oil and vegetables.

The measures called for in the program will for the most part be carried out commencing in 1983. Thus importance is being attached today to making maximum use of the principles embodied in the decisions handed down during the Plenum, in order to achieve great operational results this year, and to concentrating attention on solving the urgent and pressing tasks. The initial results of the food program must be realized during 1982.

The implementation of the tasks called for in the food program is viewed as a national endeavor and a primary obligation of the party, soviet and economic organs, professional trade union and komsomol organizations and all workers assigned to kolkhozes, sovkhozes and other enterprises of the agroindustrial complex.

The production of livestock products is an area of special concern for the party. The principal direction to be followed for increasing meat resources in the future will be that of raising the production of beef. In 1990, 9.5 million tons of beef must be obtained.

A great amount of attention has been given to the development of pig farming -- the most early maturing branch of livestock production. The task has been assigned of raising pork production to 7-7.3 million tons in 1990.

In 1990, owing to utilization of the potential offered by the steppe, forest-steppe, semi-desert and mountainous regions, the plans call for mutton production to be raised to 1.2-1.3 million tons and poultry meat -- to 3.4-3.6 million tons.

The chief trend with regard to increasing the production of milk and dairy products is that of raising the productivity of the cows. By 1990, the average growth in

milk yield per cow at kolkhozes and sovkhozes will be 500-600 kilograms. In regions of developed diary animal husbandry the average annual milk yield per cow will reach 4,000 kilograms.

The workers attached to the meat and dairy industry, together with all Soviet people, unanimously approved the decisions handed down during the May (1982) Plenum of the CPSU Central Committee and the report delivered during the Plenum by the general secretary of the CPSU Central Committee and chairman of the Presidium of the USSR Supreme Soviet Comrade L.I. Brezhnev.

The tremendous attention being given to the meat and dairy industry by the party and government, the decisions adopted with regard to the development of its production-technical base, the increase in output, the improvements in the quality and assortment of products and the organization of the industrial production of children's food products have all promoted a situation wherein, following the March (1965) Plenum of the CPSU Central Committee, the processing of cattle and milk and the production of many types of industrial products doubled in volume.

Since 1965, 1,100 new enterprises have been built and 1,200 existing ones modernized and their technical level was raised considerably. Today there are 5,400 enterprises in the branch which are capable of processing up to 58,000 tons of cattle and poultry and 194,000 tons of milk during a shift.

As a result of the implementation of measures concerned with the technical re-equipping of industrial enterprises, considerable improvements have taken place in the use of the principal raw materials and also the products obtained from the processing of cattle, meat and milk (dehydrated milk, buttermilk, whey, the blood and nutritional bone of slaughtered animals and category II sub-products), primarily for the production of food products, and non-food waste products -- for the production of dry livestock feed.

In essence, new production efforts have been created: for the production of dry dairy mixtures for young children, whole milk substitutes for feeding to young agricultural stock, feather and down products and also new polymer packaging and wrapping materials; the production of endocrine preparations has been expanded considerably.

Based upon the principal conditions of the food program and corresponding decisions handed down by the CPSU Central Committee and the USSR Council of Ministers, the plans call for specific solutions for the following principal problems:

...implementing proportional and balanced development for the agroindustrial complex, improving control, planning and economic stimulation in all of its branches, with maximum orientation towards achieving high final results;

...achieving high rates for agricultural production based upon consistent intensification, highly efficient land utilization, maximum strengthening of the logistical base and accelerated introduction of scientific achievements and leading experience into operations;

...maximum improvement in the utilization of the production-technical potential of the agroindustrial complex, a considerable increase in the return from capital

investments and material resources and the development of production specialization and concentration based upon an expansion of inter-farm and inter-branch relationships;

...a campaign to achieve economies and thrift, a reduction in losses and improvements in the quality of the agricultural products through the extensive introduction of progressive technologies for the production, processing and storing of these products and for shipments by specialized transport.

The kolkhozes and sovkhozes will play a decisive role in increasing the production of agricultural products. At the same time and for the purpose of augmenting the food resources, the plans call for the development in all areas, where the conditions so permit, of subsidiary farms of enterprises and organizations. This will make it possible to satisfy to the maximum possible degree the public catering requirements for meat, milk, vegetables and potatoes. The plans also call for the extensive use of the potential afforded by the private plots of citizens, collective horticulture and gardening.

In conformity with these trends, the task has been assigned of raising average annual production during the 11th Five-Year Plan as follows: meat (in dressed weight) to 17-17.5 million tons, milk to 97-99 million tons; during the 12th Five-Year Plan: meat to 20-20.5 million tons, milk -- to 104-106 million tons.

Data on the production of meat and dairy products from the raw materials of state resources (the USSR Ministry of the Meat and Dairy Industry), based upon the overall production volumes for livestock products in 1990 (according to preliminary computations), are presented in the Table.

Products	1980	1985		1990	
		Thousands of tons	In % of 1980	Thousands of tons	In % of 1985
Meat, thousands of tons	7705	9674	126	12050	125
Animal oil, thousands of tons	1276	1487	116.5	1574	106
Whole milk products, thousands of tons	24860	28050	113	31220	111
Rich cheese, thousands of tons	643	845	131	1080	128
Canned goods					
meat	636	1170	184	1360	116
dairy	1314	1590	121	2250	142

Taking into account the raw material and production potential, the overall volume of industrial output for the USSR Ministry of the Meat and Dairy Industry for 1985 was determined to be: 44.2 billion rubles (growth of 23.6 percent compared to 1980) and for 1990 (according to preliminary computations) -- 52.5 billion rubles (growth of 19 percent compared to 1985). These indicators for output production should be viewed as minimal in nature.

It was emphasized during the Plenum that the fulfillment and over-fulfillment of the annual plans and the plan for the 11th Five-Year Plan as a whole serve to guarantee a successful solution for the food program.

During the course of plan fulfillment and over-fulfillment, special attention must be given to improving the assortment and raising the quality of the meat and dairy products, introducing a technology for the culinary dressing of meat and other progressive technological waste-free and minimal-waste processes. We must increase the production of dairy products that are balanced in terms of protein and fat and enriched with fruit-berry and vitamin additives and also quick-frozen semi-finished meat products and prepared dishes.

Each branch worker must remember that implementation of the food program is a national endeavor, a task to be carried out by each Soviet individual regardless of the sector in which he is working.

The meat and dairy industry has an important and honorable role to play in carrying out the food program. Based upon further improvements in organizational work within the structure of the agroindustrial complex and extensive deployment of the socialist competition, the task consists of making greater use of the existing potential and reserves for intensifying production and raising its efficiency.

This requires radical improvements in the work aimed at achieving economies in the use of raw material and other material resources and the complete elimination of various types of losses during all stages of the production cycle: transporting, processing and storing of raw materials, semi-finished goods and finished products;

...during the planning and construction of new enterprises and the modernization of existing ones, to introduce scientific-technical achievements aimed at raising labor productivity and creating completely mechanized lines, modern systems of machines and assemblies and highly economic waste-free and low-waste technological processes and production efforts required for this purpose;

...implementing the assimilation (combining) at existing enterprises of the processing of certain other types of agricultural products (potatoes, grain and pulse crops, fruits, berries and others) for the production of combined and enriched food products;

...increasing the production of children's and dietetic foods and products in packaged and wrapped form, using new packaging materials which make it possible to store products over an extended period and reduce losses.

The food program calls for measures for further improving the organization of agricultural product procurements. In solving this task, a maximum amount of attention must be concentrated on implementing, jointly with the agricultural organs, a complex of measures aimed at strengthening state procurement discipline, achieving unconditional fulfillment of contractual agreements, a reduction in losses in livestock production raw materials and an increase in the moral and material interest of workers attached to the agroindustrial complex in fulfilling and over-fulfilling the established plans and tasks. It is obvious that a need has developed for examining the raw material zones of enterprises and organizing the construction, where such is feasible, of branches of meat combines and enterprises of the dairy branch, bearing in mind the need for reducing the distances for delivering cattle and milk for processing.

We must carry out the established task of completing the conversion over to accepting livestock, poultry and milk directly at the kolkhozes and sovkhozes during the 12th Five-Year Plan.

At the present time, more than 60 million head of various types of cattle are being slaughtered directly on the farms, as a result of which valuable endocrine-enzyme raw materials and other products obtained from the slaughtering of cattle are being lost without compensation. The ministry has established the goal of gradually converting over to the complete industrial processing of all cattle slaughtered.

Great and important tasks must be carried out in connection with improving the work of fattening sovkhozes within the USSR Ministry of the Meat and Dairy Industry system. In order to achieve high rates of growth for the production of meat and milk at these sovkhozes, raise the efficiency of agricultural production and strengthen the logistical base, the plans call for the development and implementation, jointly with the republic ministries, of the measures required for strengthening the sovkhoz economies, intensifying the material interest of manual and office workers in increasing the production of goods and improving their quality, obtaining skilled cadres of workers and improving the housing, municipal-domestic and socio-cultural conditions of the workers.

Positive experience in organizing subsidiary farms has already been accumulated within the USSR Ministry of the Meat and Dairy Industry system. By the beginning of 1982, more than 700 of them had been created. In 1981 they produced 3,500 tons of meat, 2,300 tons of vegetables and other products. The ministry has assigned the task of organizing subsidiary farms in the near future at all enterprises and having them produce output volumes sufficient for self-support, that is, satisfying the requirements of the public catering services for meat, milk and other products.

The role of the meat and dairy industry with regard to supplying agriculture with feed is being raised. During the 1976-1980 period, 2.3 million tons of dry livestock feed were produced and delivered to the mixed feed industry, 2.8 million tons will be produced and delivered during the 11th Five-Year Plan and during the 1986-1990 period -- approximately 3.5 million tons.

In 1970, enterprises of the dairy industry organized the production of ZTsM /zamenitel' tsel'nogo moloka; whole milk substitute/ for feeding to young agricultural stock in place of whole milk. During the years of the 10th Five-Year Plan, 825,000 tons of ZTsM were delivered to agriculture, 1.5 million tons will be supplied during the 11th Five-Year Plan and during the 1986-1990 period -- approximately 3 million tons.

Definite conditions for the successful realization of the food program include a decisive conversion over for the most part to intensive growth factors and to an acceleration in scientific-technical progress. This confronts the branch science with new and important tasks. The scientists must develop scientifically sound recommendations for the further development of production specialization and concentration, inter-farm cooperation and for improving the agroindustrial complex.

The meat and dairy industry possesses the required scientific-technical potential. During the past few years an industrial technology has been developed and mastered for producing more than 100 new types of products, including children's, medical and dietetic foods. The production of products containing various nutritional and biologically active enrichment agents, frozen and prepared for consumption meat dishes, new types of semi-finished meat products and whole milk substitutes has been mastered. New types of equipment and means of automation have been developed, mastered and introduced into operations.

However the scientific potential and creative opportunities of our scientific-research and planning-design organizations are by no means being utilized fully and do not meet the increasing requirements. Work aimed at mechanizing the principal and auxiliary processes is proceeding slowly and the introduction into operations of equipment that has already been created and mastered is being dragged out.

Efforts in the area of scientific-technical progress must be aimed at achieving complete and waste-free utilization of the livestock production raw materials for the production of food products, with non-food waste products being used for producing technical products and feed for livestock production.

Along these same lines, the development and industrial mastering of new types of meat and dairy products must be carried out, including the combined production of meat and dairy products with vegetable proteins, vitamins and biologically active substances.

One immediate task is that of creating, jointly with the machine building organizations of other ministries and departments, highly productive equipment and a system of machines which will make it possible to carry out the complete processing of raw materials based upon the use of low-waste and waste-free technological processes and to realize economies in the use of labor and fuel and energy resources.

Considerable importance is being attached to studying and making practical use of leading domestic and foreign experience. The task consists of intensifying and expanding collaboration with foreign countries, mainly with CEMA member states, in connection with achieving improvements in equipment, technology and in the complete processing of livestock production raw materials. More extensive use must be made of such forms of collaboration as drawing up contracts and agreements, conducting exhibits, symposiums and special purpose conferences and exchanging product and documentation standards.

The efforts of the scientific-research, planning and design organizations must also be directed towards solving tasks associated with eliminating heavy and unproductive labor, the mechanization and automation of production processes, improving working conditions and introducing brigade forms of labor for the purpose of reducing the number of workers and raising labor productivity.

In the program of measures for carrying out the decisions handed down during the May (1982) Plenum of the CPSU Central Committee, the ministry has defined specifically and will acquaint the associations and enterprises with the methods for solving the large-scale problems associated with implementing the food program for the meat and dairy industry. Tasks will be carried out aimed at further improving the organizational structure of control, bringing it more in line with agriculture, eliminating excess elements and overcoming parallelism in the work of the organs of control; developing and improving interrelationships among enterprises and the consumers of the products and between enterprises and the suppliers of raw materials within the agroindustrial complex; raising the role played by economic levers and managerial methods, such that in the final analysis they will promote the development of initiative at enterprises and associations in the adoption and carrying out of counter plans and socialist obligations and in making more complete use of available reserves.

In this regard, a more decisive approach must be employed for raising the level of branch management, for dealing with operational shortcomings in a self-critical and irreconcilable manner, for achieving a high culture of labor and for completing all tasks undertaken.

Improvements must take place in the work being carried out with inventors and efficiency experts in connection with the introduction of leading experience and providing maximum support for initiative and innovation aimed at raising production efficiency and labor productivity and achieving rational utilization of the latest scientific and engineering achievements, economices in the use of material resources and improvements in the quality of the output.

The program advanced during the 26th CPSU Congress and approved by the May (1982) Plenum of the CPSU Central Committee for improving food operations throughout the country has aroused new enthusiasm for the socialist competition being held under the slogan "A Maximum Amount of High Quality Products From Each Ton of Raw Material." This initiative must be supported in every possible way and introduced into our branch in order to ensure the fulfillment and over-fulfillment of the plans for producing meat and dairy products during 1982.

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FOOD PROGRAM TASKS OF LIVESTOCK INDUSTRY

Moscow ZHIVOTNOVODSTVO in Russian No 7, Jul 82 pp 2-8

/Article: "Tasks of Livestock Breeders Concerning the Implementation of the USSR Food Program"/

/Excerpt/ Responsible tasks have been set for agricultural workers concerning an increase in the production and improvement in the quality of livestock products. Plans are made to increase the average annual production of meat (in carcass weight) to 17 or 17.5 million tons during the 11th Five-Year Plan and to 20 or 20.5 million tons during the 12th Five-Year Plan, of milk to 97 or 99 million tons and 104 to 106 million tons and of eggs, to 72 billion and 78 to 79 billion respectively.

These are big and complex tasks. Therefore, the 26th CPSU Congress declared animal husbandry the shock front in rural areas. This means that rural workers, as well as workers in the entire agroindustrial complex, are called upon to take part in the cause of the further development of animal husbandry. More machinery, equipment, mixed feed, protein-vitamin additives and other physical assets necessary for an increase in the production of meat, milk and other food products should be assigned here.

Today public animal husbandry has entered a stage of development when a further rapid advance is impossible without the application of the latest achievements of science and technology, the help of industry and the participation of the rural and urban population in this. Therefore, the further advance of animal husbandry is a common task.

The plenum drew the attention of the central committees of the communist parties and councils of ministers of the Union republics, the USSR Ministry of Agriculture and local party, Soviet and agricultural bodies to the need to ensure a universal transition to intensive methods of management of animal husbandry and to greatly increase the productivity of all types of livestock and poultry.

A systematic intensification and the maximum possible rise in the productivity of animals, as well as an increase in output per head of livestock and poultry--this is the main path of the further development of animal husbandry.

An improvement in selection-pedigree work in animal husbandry, strengthening of the feed base and on this basis a rise in the level and value of animal feeding, introduction of advanced technologies and efficient methods of work and provision of veterinary well-being for sections should play an important role in this.

An accelerated growth of beef production, whose volume is to be increased to 7.8 million tons in 1985 and 9.5 million tons in 1990, is customarily considered the basic direction in the increase in meat resources.

The growth of beef production should occur mainly through a rise in the productivity of large-horned cattle, as well as the further increase in the population of animals sold for meat. First of all, it is necessary to sharply raise the average daily gains in livestock during raising and fattening, to greatly shorten the length of these operations and to strive for the sale of young large-horned cattle of high weight grades--400 to 500 kg. Farms in a number of oblasts in the Russian Federation, the Ukraine, Belorussia and the republics of Central Asia and the Trans-Caucasus have great potentials in this respect.

The low productivity of livestock and overexpenditure of feed, labor and funds must no longer be tolerated. The sale of low-weight livestock for meat should be considered inadmissible. It is necessary to more widely use the pasture fattening of livestock, as well as to increase the intensity of raising and fattening of young stock. The barn and pasture fattening of livestock should be carried out with a preferential utilization of green, coarse and succulent feed and byproducts of the food industry, which will make it possible to lower the cost of output and to reduce the expenditure of concentrates.

Extensive work will have to be done on the transfer of livestock raising and fattening to an industrial basis through the reconstruction and expansion of existing sections, as well as new construction of complexes and fattening areas. Practice shows that beef production complexes, where a firm feed base is established, technology is maintained strictly and production is well organized, obtain high average-daily gains and sell livestock of an average live weight of 400 to 500 kg at the age of 14 months. For example, the collectives of the Mir Complex in Brest Oblast, the Druzhba Complex in Vologda Oblast, the Valuyskiy Complex in Belgorod Oblast, the Dubrovskiy Complex in Chelyabinsk Oblast and the Yumatovskiy Complex in the Bashkir ASSR make such advances. When raising and fattening young large-horned cattle, they obtain average daily gains of 1,000 to 1,100 grams with labor expenditures of 2 to 4 hours and an expenditure of 5.5 to 6 fodder units per quintal of increase in live weight.

As before, beef production will be carried out mainly as a result of the raising and fattening of extraremount young livestock of dairy and combined breeds. At the same time, specialized beef husbandry should be developed further. At present this animal husbandry sector is not yet developed sufficiently.

As world experience and the practice of many farms in our country show, beef husbandry does not require big capital investments, material resources and labor expenditures. The relatively low need for concentrated feed is an important characteristic of this sector. In its general nutritiousness coarse and succulent feed makes up 70 to 75 percent and concentrated feed, 25 to 30 percent in the ration for beef cattle, including young feeder stock. Specialized beef husbandry should continue to be placed in regions with vast areas of natural fodder land--the Kazakh SSR, the Volga Area, South Urals, West and East Siberia and North Caucasus. At the same time, the breeding of beef cattle on specialized farms in the country's other regions has considerable prospects. Good experience in this matter has been accumulated in Cherkassy, Chernigov and some other oblasts.

In this connection it is advisable to intensify the work on the expansion of the pedigree base and on the establishment of large areas of beef cattle adapted to the natural-climatic and fodder conditions of the country's different zones through the development of new breeds, types and lines on the basis of interbreed crossing and hybridization. Scientific developments and practical selection for the establishment of new pedigree groups and types of livestock for the regions of the Lower Volga Area and North Caucasus, the Ukraine, North Kazakhstan and adjoining regions of West Siberia, South-East and East Kazakhstan, Central Asia and the Trans-Caucasus are contemplated.

The industrial crossing of cows of dairy and combined breeds with bulls of specialized beef breeds is one of the potentials for an increase in the production and improvement in the quality of beef. Under the conditions of intensive raising and fattening the beef productivity of crossbred young stock increases by 10 to 15 percent. It is necessary to more widely use such a breeding method in livestock husbandry.

The development of efficient technologies providing for the combined keeping of large-horned cattle on pastures and in light-type barns, as well as the fattening of livestock in open areas, deserves attention. For example, a complex, in which heifers are raised in barns and young stock is fattened on an area with shades over feeders, has been built and is being mastered on the Sovkhoz imeni Tel'man in the Tajik SSR. A total of 7,300 head of large-horned cattle of an average live weight of about 400 kg were sold there in the course of the mastering of capacities in 1981. The Khovaling Agroindustrial Association for Beef Husbandry designed for 77,000 head of large-horned cattle is being established in Tajikistan's piedmont and mountain regions. In the association breeding stock, young replacement stock and heifers under the age of 7 months are raised on pastures without supplementary concentrate feeding and young stock is fattened on the area. The good supply of locally produced coarse and succulent feed enables the workers of the Proletarskaya fattening area in Rostov Oblast to attain high indicators. In 1981 the enterprise delivered 26,000 head of young stock of an average live weight of 436 kg to the state. The average daily gain was 924 grams and 8.3 quintals of fodder units and 1.4 hours per quintal of gain were spent.

In the food program a prominent place is assigned to the further development of hog breeding as the earliest maturing sector of animal husbandry. Pork production is to be increased to no less than 6.5 million tons in 1985 and to 7 or 7.3 million tons in carcass weight in 1990. The task of increasing the sector's efficiency is set, that is, improving the utilization of breeding stock, ensuring a high yield and preservation of offspring, raising the average daily gains of feeder hogs, lowering the expenditure of feed on the production of products and increasing labor productivity. Along with the organization of highly intensive hog breeding at industrial sections and complexes plans are made to more fully realize the possibilities of increasing pork production at sections of nonspecialized kolkhozes and sovkhozes, on subsidiary farms of enterprises and organizations and on private subsidiary farms of citizens. On every farm, where the appropriate conditions exist, it is necessary to have hog breeding sections for meeting internal needs for meat, as well as for selling young hogs to the population.

Significant advances have been made in the development of hog breeding in the last few years. The widespread introduction of industrial technologies, as well as the implementation of measures for the sector's further specialization and concentration, played an important role. A total of 499 large hog breeding complexes have been established and now operate on kolkhozes, sovkhozes and an interfarm basis. A total of 16 percent of the public stock of hogs is kept and about 30 percent of the pork is produced on them. In 1981 the average daily gains of hogs at large enterprises were 36 percent higher than on ordinary farms. Pork production per sow available at the beginning of the year is 2.4 times higher at complexes than on other types of farms.

At the same time, there are also serious shortcomings. The number of hogs and pork production on nonspecialized farms have been reduced in a number of oblasts. For example, in Sverdlovsk Oblast previously liquidated hog breeding sections have not been restored to this day and at present hogs are not raised on 123 farms. In Kalinin Oblast during the 10th Five-Year Plan pork production increased at hog breeding complexes and decreased at ordinary sections. This led to the fact that pork production in the oblast declined by 23 percent.

As a result of the implementation of measures for the transfer of hog breeding to industrial technologies, the proportion of concentrated feed in the structure of hog rations rose. Whereas in 1965 it comprised 71 percent, in 1980 it made up 84 percent.

Many kolkhozes and sovkhozes have begun to grow insufficient fodder roots crops and potatoes and to procure insuffient mixed silage for hogs. At the same time, mixed feed is not utilized efficiently everywhere. A significant part of it is fed to animals in unbalanced form, which leads to an overexpenditure of feed and lowers its yield.

In order to increase pork production with locally produced feed and to raise the efficiency of hog breeding, it is necessary to more widely introduce the flow-shop system of production of this product, which has become widespread on kolkhozes and sovkhozes in Estonia. Enterprises with a completed herd turnover and an annual volume of pork production ranging from 400 to 800 tons are established here on the basis of the reconstruction and expansion of sections. A total of 240 out of the 276 kolkhozes and sovkhozes that have hogs have been transferred to the flow system. During the 10th Five-Year Plan 72 percent of the total increase in areas for hog keeping was ensured through the reconstruction of existing sections and only 28 percent, through new construction. The cost of a place for one animal in case of reconstruction was 42.4 rubles, as compared to 272 rubles in case of new construction. Owing to the extensive work of party, Soviet and economic bodies, in the Estonian SSR pork production volumes annually increase and economic indicators improve.

The camp keeping of hogs, which makes it possible to more fully utilize cheap green fodder, to improve the herd's health and to increase the productivity of animals, can serve as an additional potential for a rise in pork production during the summer period. Therefore, the farms that take measures to place the maximum permissible number of hogs on them act correctly. In practice, in summer

the entire stock of hogs is kept in camps on the Taldom Sovkhoz in Moscow Oblast, the Udarnik Sovkhoz in Rostov Oblast, the Nacha Sovkhoz in Brest Oblast, the Rassvet Kolkhoz in Ostrovetskiy Rayon, Grodno Oblast, the Payesis Kolkhoz in Kaunasskiy Rayon, the Kolkhoz imeni Chernyakhovskiy in Radvilishskiy Rayon, the Lithuanian SSR, and many other farms. Enclosed pastures have been established and a green conveyer has been organized near camps.

In the last few years positive shifts have been noted in the development of hog breeding on nonspecialized kolkhozes and sovkhozes, subsidiary farms of enterprises and private farms of the population. In 1982 the number of kolkhozes, sovkhozes and interfarm enterprises having hogs increased to 32,300, or by 6,000 as compared with 1976. On subsidiary farms of industrial ministries and departments in 1976-1981 the number of hogs doubled and pork production rose by 24 percent. The population is given help in the construction of barns for livestock and in the purchase of feed and equipment and the sale of young hogs has been organized. The conclusion of contracts with the population for livestock raising is becoming more and more widespread. In 1981 kolkhozes and sovkhozes sold 16.5 million young hogs (in 1976, a total of 8.6 million head) to the population and 216,000 hogs were transferred for raising on a contractual basis.

However, a great deal still must be done in this direction. Kolkhozes and sovkhozes should give the rural population more efficient help in the creation of all the conditions necessary for the development of hog breeding on private subsidiary farms.

The food program envisages a better utilization of the possibilities of the country's steppe, forest-steppe, semidesert and mountain regions for an increase in mutton production. Plans are made to increase its production to 1 million tons in 1985 and to 1.2 or 1.3 million tons in carcass weight in 1990. Measures will be taken to increase the number of Romanov, Tsigai and other meat-wool breeds of sheep in places of their traditional raising. It is considered advisable to systematically transfer sheep breeding to an industrial basis in intensive sheep breeding zones.

Unfortunately, it must be noted that the existing possibilities for an increase in mutton production are by no means utilized fully and the volumes of production of this type of meat do not grow. This is due to a significant extent to a reduction in the stock of sheep in a number of republics and oblasts. For example, as compared with 1965 the number of sheep and goats was reduced in the Ukrainian SSR, the Moldavian SSR, the Belorussian SSR and the Georgian SSR. This sector has not yet been properly developed in the country's nonchernozem zone and in the Central Chernozem Region of the RSFSR. The stock of sheep was reduced in Tula, Orel, Ryazan, Vladimir, Tambov, Kalinin and Lipetsk Oblasts. The population of sheep and goats in a number of developed sheep breeding regions, in particular in Kuybyshev, Penza and Ulyanovsk Oblasts and the Tatar ASSR, was also lowered.

To increase new mutton production, it is necessary to raise the share of females in the herd structure. It now averages 51 to 52 percent, in the Russian Federation, only 48 percent, in the Belorussian SSR, 46 percent and in the Ukrainian SSR, 38 percent.

The experience of advanced farms shows that, when intensive barn and pasture fattening is organized, it is possible to greatly increase the average weight of sheep delivered for meat and to raise mutton production. However, many kolkhozes and sovkhozes still deliver sheep and goats without preliminary barn and pasture fattening and with a low weight and inadequate fatness. In 1981 in the Russian Federation sheep and goats of an average weight of 35 kg were delivered to procurement centers, in the Ukrainian SSR, 34 kg, in the Belorussian SSR, 30 kg, in the Moldavian SSR, 29 kg and in the Georgian SSR, 26 kg.

Farms incur big losses of output as a result of the distant driving of sheep to meat processing enterprises and the untimely acceptance and long preslaughter keeping of animals at these enterprises. To reduce these losses, it is necessary to more actively introduce the delivery and acceptance of livestock directly on farms and its transportation by the facilities of procurement organizations.

Obsolete technology of the sector's management is used and few capital sheepyards adapted for winter and early spring lambing are built at most sheep breeding sections. On many farms in Kazakhstan, West and East Siberia, the Volga Area and other regions sheep are placed in individual flocks, which creates difficulties in the mechanization of sections and in their provision with highly skilled personnel and lowers the efficiency of production of sheep products.

The conditions for an increase in mutton production at large mechanized sheep breeding sections and areas for the raising and fattening of young stock are most favorable where the feed base has been strengthened, working conditions have been improved and cultural-general services for sheep breeders have been organized. On kolkhozes and sovkhozes there are now about 300 overally mechanized sections, at which more than 1 million sheep are placed, and more than 1,200 areas for the raising and fattening of young stock and mature culled stock. A total of 52 overally mechanized sections for 315,000 ewes and 171 section areas of various types for 1,530,000 head accomodated simultaneously were built in Stavropol Kray alone. The long-term practical experience of these enterprises points to their high efficiency. For example, on the Zavety Lenina Kolkhoz in Petrovskiy Rayon, Stavropol Kray, in 8 years 1,600,000 rubles of net income were obtained from the sale of young stock raised at the area, the level of profitability of mutton production comprised 45 percent and labor productivity rose 3.5-fold. The wool clip also increased considerably. This advanced trend in sheep breeding should be developed further.

In the solution of the meat problem a prominent place is assigned to an increase in poultry meat, which is to be brought up to 2.6 million tons in 1985 and up to 3.4 or 3.6 million tons in carcass weight in 1990. For this plans are made to accelerate the construction of new and reconstruction of existing broiler poultry factories and to additionally establish specialized farms for the production of turkey, duck and goose meat. It is planned to place new poultry factories of egg specialization primarily in regions with an insufficient level of egg consumption. The further growth of egg production will occur as a result of an increase in the productivity of poultry and intensification of production concentration through the expansion of existing farms or establishment of associations.

In meat poultry breeding the further growth of production, along with the construction of new large enterprises of an annual capacity of 8,000 to 15,000 tons of broiler meat, will occur as a result of the expansion of existing farms and organization of large associations with an annual production capacity of up to 50,000 tons of meat. An increase in the efficiency of chick raising--rise in daily gains, shortening of the fattening period and reduction in the expenditures of fodder, labor and funds per unit of output--becomes the main direction in the operation of broiler enterprises.

The development of poultry breeding is envisaged on farms of all categories. In order to fully provide kolkhozes, sovkhozes and private subsidiary farms of the population with young stock for breeding, it will be necessary to expand the network of reproducers in the system of the USSR Administration of Poultry Raising Industry. The task of increasing the sale of 1-day old stock to the population from 570 million head in 1980 to 1 billion head in 1985 is set.

An increase in poultry meat production primarily as a result of broiler raising will be the priority direction in poultry breeding until 1990. This will make it possible not only to improve the population's supply, but also to raise the economy of meat poultry breeding.

The food program envisages an increase in rabbit meat production.

Measures will also be taken to increase meat resources as a result of the development of horse and deer raising.

A prominent place in the food program is assigned to an increase in the production of milk and dairy products. An increase in the productivity of cows and a systematic transfer of dairy husbandry to an industrial basis, primarily as a result of the expansion and reconstruction of existing sections, is the main direction here. Plans are made to take measures to improve the quality of milk, for which it is necessary to fully meet the need of dairy sections for equipment for cow milking and milk cooling and storage, for automatic instruments for the determination of the quality of milk, as well as for filtering, washing and disinfecting facilities.

After the March (1965) Plenum of the CPSU Central Committee dairy husbandry in the country developed significantly. During 1966-1980 milk production in the public sector of farms increased by 45.5 percent. An especially big increase in gross output was attained in the Uzbek SSR (2.8-fold), the Tajik SSR (2.7-fold) and the Turkmen SSR (2.2-fold). A significant increase was also obtained on farms in Belorussia, Moldavia and Azerbaijan.

The biggest increase in milk production was attained during the 8th and 9th Five-Year Plans. However, as a result of unfavorable weather conditions and in this connection the deterioration in the provision of sections with feed, in the last few years many farms have allowed a reduction in the productivity of the dairy herd and in the gross production of milk.

The slackening of attention to the organization of herd reproduction has led to a reduction in the yield of heifers per 100 cows. The indicators of heifer yield are especially low on many farms in the Kazakh SSR, the Georgian SSR, the Kalmyk and Tuva Autonomous Republics and Ryazan, Smolensk, Rostov and Chita Oblasts.

At the same time, the practical work of advanced farms in Moscow and Leningrad Oblasts, a number of other oblasts, the Baltic Republics, the Moldavian SSR and the Belorussian SSR points to the great possibilities of development of highly productive dairy husbandry. Many of them, owing to well-organized selection-breeding work, constant attention to the development of the fodder base and optimal labor organization, annually increase the volumes of milk production and raise the productivity of cows. For example, let us take the Petrovskoye Pedigree Plant in Moscow Oblast. At this plant in 1981 milk production increased by 365 tons, or by 11 percent, as compared with the previous year, and 5,353 kg of milk per cow were obtained, which was 108 kg more than in 1980. The increase in the productivity of cows and in milk production was attained as a result of the stable fodder base, balanced feeding of cows and purposeful selection work. The enclosure pasturage of the milch herd on cultivated pastures makes it possible to obtain milk at a low production cost. The farm pays much attention to the procurement of hay-quality hay and fodder root crops.

In the last few years the collective of livestock breeders on the Kolkhoz imeni Lenin in Novomoskovskiy Rayon, Tula Oblast, has attained high indicators in milk production. On the average, 5,100 kg of milk per cow at a production cost of 16.7 rubles per quintal were obtained there in 1981. Labor expenditures per quintal of milk were 1.3 hours and feed consumption, 100 fodder units.

The technology of loose-box keeping of cows in barns with underground manure storage was first used at the kolkhoz dairy complex. Specialists pay much attention to the establishment of a herd adapted for mechanical milking, to the examination of first heifers, to the correct organization of cow milking and to the selection and improvement in the skills of personnel.

Feed production problems were carefully thought out on the farm. Cultivated pastures were established promptly and irrigated hayfields were created. The sowings of a mixture of clover, timothy, brome grass and meadow fescue produce 100 quintals of dry mass per hectare here. Hay is dried by the active ventilation method and haylage is placed in faced trenches.

High goals were attained by the livestock breeders of the Perm Horse Plant, who in 1981 obtained an average of 5,805 kg of milk per cow. The well-organized fodder farm, which has available irrigated perennial cultivated pastures and hayfields and is based on advanced feed procurement technologies, makes it possible to ensure a high-grade feeding of the milch herd. Cows receive 60 to 80 kg of various feed daily, that is, 10 kg of hay, 30 kg of silage, 10 kg of turnips, 10 kg of fodder beets, 5 kg of potatoes, 2 kg of carrots and up to 10 kg of malt residue. Vitamin grass meal is given in winter. The set of fodder crops includes oats and barley.

The workers of dairy sections of the Ploskovskiy Pedigree Plant in Kiev Oblast, of the Sigulda Scientific Experimental Farm in the Latvian SSR, of the Chinaz Sovkhoz in the Uzbek SSR and many other farms, who obtain high milk yields and ensure efficient milk production, deserve good words. A widespread utilization of the valuable experience accumulated on these farms will make it possible to raise the standard of dairy husbandry and to successfully accomplish the tasks set by the May Plenum of the CPSU Central Committee for section workers concerning an increase in the productivity of cows and in milk production.

A reduction in the losses of the products obtained is one of the important directions in the realization of the food program. The task of improving the organization of procurement of livestock, milk and other animal products, expanding the network of receiving centers and maximally bringing them closer to production places is set. The responsibility of procurement bodies and enterprises for a prompt acceptance and provision of safety of products is increased. They have been instructed to speed up the transition to the acceptance of livestock and milk directly on farms.

Provision is made for the establishment of a firm fodder base for animal husbandry as an important condition for an increase in the productivity of livestock and poultry and in the production of livestock products. The task of increasing feed production in the country to 500 million tons in 1985 and to 540 or 550 million tons of fodder units in 1990 is set. In 1990 the procurement of hay should be raised to 110 or 112 million tons and of fodder root crops, to 60 or 63 million tons.

The CPSU Central Committee instructed the central committees of the communist parties and the councils of ministers of the Union republics, the USSR Ministry of Agriculture, the USSR Ministry of Land Reclamation and Water Resources, the USSR State Committee for Supply of Production Equipment for Agriculture and local party, Soviet and agricultural bodies to implement the necessary measures for the further intensification of field and meadow-pasture feed production and an increase in the productivity of all fodder land.

It was considered advisable to lend a specialized sectorial nature to feed production on kolkhozes and sovkhozes, to pay special attention to ensuring the balance of feed in terms of protein and other components and to improving the quality and reducing the losses of feed and to expand the sowings of lucerne, clover, lupine, soybeans, rape and other high-protein crops.

Plans are made to fundamentally improve natural fodder land on an area of 27 to 29 million hectares during the decade, to establish irrigated hayfields and pastures on 2 to 2.2 million hectares and to water pastures on an area of 36 to 38 million hectares.

An improvement in the production of seeds of lucerne, clover and other fodder crops became an urgent task. In connection with this plans are made to organize in the Uzbek SSR, the Kazakh SSR, the Kirghiz SSR and the southern regions of the RSFSR and the Ukraine specialized farms for the production of lucerne seeds and their delivery in the necessary amounts to the all-Union stock.

A reduction in the losses of nutrients in feed and an improvement in its quality largely depend on the introduction of advanced technologies of feed procurement and storage. For this silage and haylage installations in the volume of 240 to 245 million cubic meters, hay storage facilities in the volume of 60 to 65 million tons and fodder root storage facilities in the volume of 30 to 35 million tons of one-time storage will be put into operation on farms during the decade. The construction of storage facilities for grain fodder, grass meal and granulated fodder mixtures is expanding considerably in order to fully meet the needs of kolkhozes and sovkhozes for them.

An expansion of the output of mixed feed is a reliable way of an efficient utilization of grain. Plans are made to greatly increase the production of mixed feed at state enterprises, as well as at kolkhozes, sovkhozes and interfarm enterprises. In order to solve this important problem, plans are made to increase the output of high-grade protein-vitamin additives, fodder yeast, fish meal and feed of animal origin.

The food program pays specific attention to the development of private subsidiary farms, orchard and garden cooperatives and subsidiary farms of enterprises and organizations, whose share in the replenishment of the resources of meat, milk, eggs and other agricultural products is quite significant. Therefore, the Plenum of the CPSU Central Committee singled out the creation of conditions so that every family living in rural areas could have a private plot and keep livestock, poultry and other types of productive animals as the most important task of the councils of ministers of the Union and autonomous republics, kray, oblast and rayon executive committees, agricultural bodies and managers of farms, enterprises and trade-union organizations.

Agricultural science should play an important role in the successful accomplishment of the tasks set by the food program concerning an increase in the production of livestock products. It is necessary to implement measures to refine the pedigree and productive qualities of livestock and poultry and to improve existing and develop highly productive, new breeds, pedigree groups, lines, hybrids and crosses meeting the requirements of industrial technologies in animal husbandry sectors. Veterinary scientific institutions should develop and introduce into production improved methods and means of prevention and treatment of animal diseases, effective biological and chemotherapeutic veterinary preparations, their production technologies and devices and instruments for mass examinations and processing of animals.

The food program should yield its first fruits as early as 1982. That is why it is necessary to contribute in every possible way to an unconditional fulfillment and overfulfillment of state plans for the purchases of livestock products. The fullest utilization of the possibilities of the pasture period for a rise in the productivity of animals, increase in the production of meat, milk, eggs and other livestock products, establishment of reliable feed reserves and preparation for a successful realization of the forthcoming wintering of livestock is now the most urgent task. This creates a reliable basis for the attainment of the planned goals during the current five-year plan and the implementation of the food program.

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AGRO-ECONOMICS AND ORGANIZATION

DEVELOPMENT OF RAYON AGROINDUSTRIAL ASSOCIATIONS OUTLINED

Tallinn SOVETSKAYA ESTONIYA in Russian 16 Jul 82 p 2

/Article by Candidate of Economic Sciences A. Kosynkin: "Improving Control"/

/Text/ The May (1982) Plenum of the CPSU Central Committee developed and approved an orderly system of scientifically sound measures aimed at increasing substantially the production of food goods. An important element of the party's agrarian policies during this present stage is that of improving control over the agroindustrial complex.

This derives from the fact that certain elements of the economic mechanism and administrative control, elements which have been in existence for many years, have lost their economic effectiveness under modern conditions and have even begun to paralyze the production of agricultural products.

Why has this happened? The fact of the matter is that in recent years, with the industrialization of agricultural production, which has intensified the processes of division of labor, new branches and organizations for providing services for the kolkhozes and sovkhozes have appeared in the oblasts and rayons.

On the one hand, a network of enterprises and organizations has been formed for supplying the rural areas with logistical resources, for repairing and servicing equipment, for applying fertilizers and for carrying out land reclamation work, construction and the transporting, procurement, storage and processing of products. This has obviously complicated the work of the kolkhoz and sovkhoz leaders. Many of them have been forced to have dealings with 2-3 dozens of different organizations.

On the other hand, all kinds of highly specialized branch associations, trusts and firms having union, republic, oblast and inter-rayon subordination have made an appearance in agriculture. In this regard, a threefold and even fivefold increase in the size of the administrative apparatus has taken place over the past 15 years in some republics and oblasts. The excessive centralization of control over specialized farms has produced a situation wherein in many regions, particularly in Altayskiy and Krasnodarskiy Krays and in Rostov and Omsk Oblasts, all or almost all of the sovkhozes are subordinate to organizations located outside the regions. Beyond any doubt, this has resulted in a weakening in the status of affairs at the rayon level.

Departmental separation in the area of control has produced serious shortcomings in planning and logistical supply. The problems concerned with production distribution,

the processing of agricultural products, concentration, specialization and agroindustrial integration are not always being solved in a well thought out manner. Quite often, parallelism and duplication are being observed in the work of various organizations.

The appearance in the rural areas of a large number of new organizations and institutes has produced a situation wherein the leaders and specialists of kolkhozes and sovkhozes have been forced to spend a large amount of time in attending conferences, reaching agreements and attending to correspondence. Excessive regulation of the activities of kolkhozes and sovkhozes has increased the administrative workload and petty guardianship and paralyzed local initiative.

The May Plenum of the CPSU Central Committee analyzed thoroughly the status of affairs in the agroindustrial complex and it recognized the necessity for implementing considerable improvements in control over agriculture and its associated branches, both in the center and in the various areas. The agroindustrial complex is now being singled out as an independent object for planning and control. This will make it possible to combine territorial, branch and program-special purpose planning in a better and more effective manner. This is based upon achieving a high final result -- the continuous supplying of the country's population with all types of food goods and maximum improvements in production efficiency.

Committees of the presidiums of the councils of ministers for problems concerned with the agroindustrial complex are being created in the center and in the union republics. They are being given extensive rights and responsibility for supplying the population with food products is being assigned to them. The committees will coordinate the activities of all of the ministries and departments belonging to the agroindustrial complex and ensure that they fulfill their mutual obligations in an efficient manner.

Agroindustrial associations are being created in the autonomous republics, krays, oblasts and rayons. Their task -- to achieve a sharp change towards the use of intensive methods of management and the improved use of land, production capabilities and labor, material and financial resources, in order to bring about a rapid increase in the production of all types of agricultural products.

Special importance is being attached to the lowest level -- the RAPO's /rayonnoye agropromyshlennoye ob"yedineniye; rayon agroindustrial association/. The structure of a RAPO includes kolkhozes, sovkhozes, inter-farm formations and also enterprises and organizations which service them and which are associated with processing the products. Their organs of control -- the councils of associations, which are allotted considerable rights in the area of planning, production organization and capital construction and in the distribution of logistical resources. They are authorized to centralize the carrying out of individual production-economic functions and to approve the accounting prices and rates.

The experience accumulated by the agroindustrial associations in a number of rayons in the Russian Federation, the Ukraine, Georgia, Latvia and Estonia testifies to the promising nature of this form of control.

Thus the Vilyandiskiy Rayon Agroindustrial Association has been operating in the Estonian SSR since 1975. Its structure includes 15 kolkhozes, 5 sovkhozes and 6

goskhozes and also rayon organizations of sel'khoztekhnika, mezhkolkhozstroy /interkolkhoz construction organization/, grain products combines and a meat combine. The following figures testify to the operational effectiveness of this association better than any words are capable of doing. During the 10th Five-Year Plan and compared to the 9th, the gross output volume per 100 hectares of agricultural land here increased from 56,000 to 70,000 rubles, milk -- from 670 to 820 quintals and meat -- from 136 to 184 quintals. Moreover, the absolute indicators for growth in the production and sale of products to the state in this rayon were 20-40 percent higher than the average indicators for the republic.

The work of the association is based upon a broad combination of the principles of democratic centralism and the planned management of the rayon's economic and social development with economic independence, initiative, enterprise and material interest on the part of each of its members. This makes it possible to concentrate the efforts of partners on solving the chief tasks, to carry out a more effective program in behalf of farm specialization and cooperation, to lower output losses and to assist backward elements. By means of joint efforts, success can be achieved in the correct distribution of planning tasks and their successful fulfillment, resources can be utilized more efficiently, improvements can be realized in logistical supply and also in the sale and processing of products and the level of capital construction can be raised.

Improvements in control over agricultural production within the system of a rayon agroindustrial complex have made it possible to correctly combine local interests with state interests and to make management complete, many-sided and at the same time purposeful and subordinate to achieving high final results. It can be stated boldly that a RAPO is a new form from the standpoint of quality and in terms of its internal form it represents a higher stage in the development of state organs of control. Today the task is one of reducing the size of the control apparatus during the course of reorganizing control in the various areas and making it inexpensive for our society.

The changes called for by the CPSU Central Committee and the government in the control system and the improvements in the economic mechanism are confronting the local organs with great and responsible tasks with regard to mobilizing all reserves and opportunities for the successful realization of the food program and raising the level of organizational and economic work in the branches of the agroindustrial complex. The chief concern this year is that of ensuring fulfillment of the production and procurement plans for all types of agricultural products and preserving, processing and delivering to the consumers all of the products raised on the fields and obtained from the farms. Importance is being attached to strengthening planning discipline in every possible way and accurately observing contractual obligations. We must not tolerate a situation wherein problems of local importance are resolved at the expense of carrying out state tasks. It is known, for example, that high quality seed for alfalfa, sugar beets, vegetables and corn cannot be grown in all rayons and that there are still many farms which are in need of pedigree young stock. Thus a primary obligation of those rayons which possess the required conditions is that of providing assistance to the needy farms by supplying them with elite seed, high pedigree livestock and so forth.

The creation of new organs of control in the rayons and oblasts represents an important stage in the work of the party, soviet and economic organizations. Today a maximum degree of efficiency must be displayed by them in carrying out their work.

Success in this work will be largely determined by a careful selection of highly skilled personnel for the system, individuals who possess experience in organizational work and who have passed through the school for exercising control over agricultural production.

"One can have confidence in that sector of work" emphasized Comrade L.I. Brezhnev during the Plenum of the CPSU Central Committee, "that is headed by an individual who possesses a good knowledge of his work, who displays concern for that work and who is able to work with people. Of such individuals it is said that they have found their niche."

The implementation of those measures aimed at improving control over the agroindustrial complex is creating conditions for achieving a rapid increase in the production of farming and livestock products and for the successful fulfillment of the food program.

7026
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MANAGEMENT, FUNCTIONS OF EXEMPLARY LATVIAN RAPO

Moscow SEL'SKAYA ZHIZN' in Russian 11 Aug 82 p 2

/Article by V. Kleynberg, chairman of the administration for the Talsinskiy RAPO, Latvian SSR: "Administration At the Rayon Level"/

/Text/ This is the second five-year plan for which a RAPO /rayonnoye agropromyshlennoye ob"yedineniye; rayon agroindustrial association/ has been in operation in Talsinskiy Rayon. It has passed through several organizational stages. Initially it included only kolkhozes and sovkhozes. Subsequently these were joined by all enterprises which provide services for agriculture (sel'khoztekhnika, mezhkolkhozstroy /interkolkhoz construction organization/ and a land reclamation construction column) and by enterprises which process the agricultural products.

All members of the RAPO entered the association on a strictly voluntary basis and they retained their economic and legal independence completely. Enterprises which provide services for agriculture acquired dual subordination: they report to their central department on the results of their financial-economic activities and to the association -- on fulfillment of the plans for services and on the schedules and quality of the work.

The highest organ of the RAPO is the association's council. It includes representatives from all of the farms and enterprises -- 82 individuals in all. The council convenes once each quarter and it solves problems associated with the carrying out of the association's principal tasks and as well it determines the future prospects for the production operations.

The association's council elects the administration, which is its executive and administrative organ. Allow me to cite several examples. The rayon was supplied with five plows which were specially equipped for applying fertilizers. Earlier they would have been distributed by the chairman of raysel'khoztekhnika. As a rule these implements which are in short supply are assigned either to those who are first in submitting their requests or who furnish the most convincing arguments. Recently, during a meeting of the RAPO administration, the director of the Virbi Sovkhoz M.I. Nefedov stated: "Regardless of how much thought you might give to the matter, one cannot divide 14 into 5. Let us create a detachment, attached to the agricultural chemical service, for applying fertilizers to the soil. It could provide services for the entire rayon.

Sometime later, after we became convinced that the detachment was operating successfully, we no longer distributed the powerful manure spreaders. Four detachments were created attached to the agricultural chemical service for the purpose of preparing and applying organic fertilizers.

The association's council created an administrative apparatus for the purpose of directing in an efficient and intelligent manner the activities of the branches, specialized enterprises and production complexes. The following services operate within RAPO: a dispatcher service for the production and processing of field crop husbandry and animal husbandry products; a service for scientific-technical progress and the mechanization of production; a service for construction organizations and for the operation of buildings and installations. The following departments also function within RAPO: planning-economic, reporting and accounting, control-auditing, legal and personnel.

This apparatus is maintained by means of deductions from kolkhoz and sovkhoz profits. It is hoped that enterprises of other branches will participate in the formation of the wage fund for workers in the RAPO system; as yet this is not being done owing to their different departmental subordinations. It is believed that solutions will be found for these and other problems once an agroindustrial committee has been created in the republic.

But RAPO has not yet performed in a passive manner. For example, an interfarm enterprise for the mechanization and electrification of agriculture was created in the rayon. It was assigned a number of functions which previously were carried out by raysel'khoztekhnika. The wages for several workers of this association are being paid out of the raysel'khoztekhnika wage fund. And this does not constitute a violation: these workers are performing tasks which are common to the interfarm organization and to raysel'khoztekhnika.

The Talsinskiy Rayon Agroindustrial Association is a cost accounting organization. Its financial base consists of centralized funds. Four such funds were created: for strengthening and expanding production; socio-cultural measures and housing construction; material incentives; a reserve fund. The initial RAPO years did not call for large-scale capital construction. Thus, no more than 100,000 rubles were assigned to the development fund during the 10th Five-Year Plan.

Allow me to cite several examples of resources being expended from this fund. In accordance with intrarayon specialization, the Kolkhoz imeni Lenin was tasked with producing grain crop seed for a group of neighboring farms. The RAPO administration transferred 90,000 rubles to this farm for acquiring the appropriate equipment and also transport means for delivering the seed directly to the sowing machines. Proper use was made of the money: a highly mechanized point for cleaning the grain crop seed and the necessary warehouse facilities were built.

Centralized funds were employed for creating complexes for cleaning grass seed at the Valdgale and Okte Sovkhozes. The RAPO administration made funds available for erecting a modern potato storehouse at the Draudziba Kolkhoz, for the construction of interfarm hard surface airfields and for expanding the logistical base of an artificial insemination station.

The allocation of resources for socio-cultural measures and housing construction is limited by the availability of funds for materials. But we will provide the volume

planned for the rayon. Moreover, we are certainly displaying a preference for housing construction. The association annually centralizes approximately 40,000 rubles into the material incentives fund. Last year the size of this fund increased by a factor of almost 1.5. Actually, with the consent of their higher organs, raysel'khoztekhnika and a mobile column for land reclamation construction have started to participate in the formation of this fund.

At one time the association had a reserve fund. However, owing to three very unfavorable and consecutive years, this fund was expended almost completely. Today however, gross production at the Talsinskiy RAPO is 10 percent higher than the average for the republic, the meat yield per unit of space is greater by 7 percent and milk -- by 20 percent.

The RAPO council is able to furnish assistance to those farms which at any given moment is short of funds. Thus, 59,000 rubles were allocated from the centralized funds to the Okte Sovkhoz for the formation of its principal herd. The Kurzeme Kolkhoz was presented with 15,000 rubles for the construction of calf fattening sites. Many such examples could be cited. But the problem is not one of numbers. It is the principle that is important: the centralized funds should not be viewed as immovable freight, nor should they be diverted from agriculture. Instead, they should be used for expanded reproduction, for solving housing and social problems in the rural areas and for awarding incentives to workers who have distinguished themselves.

The centralization of resources for the carrying out of common tasks is not a new undertaking. Usually the amount of such contributions to the overall treasury is dependent upon the amount of an enterprise's profit or the net income of a kolkhoz. Scientists at the Institute of Economics of the Latvian SSR Academy of Sciences have suggested another and possible more correct method.

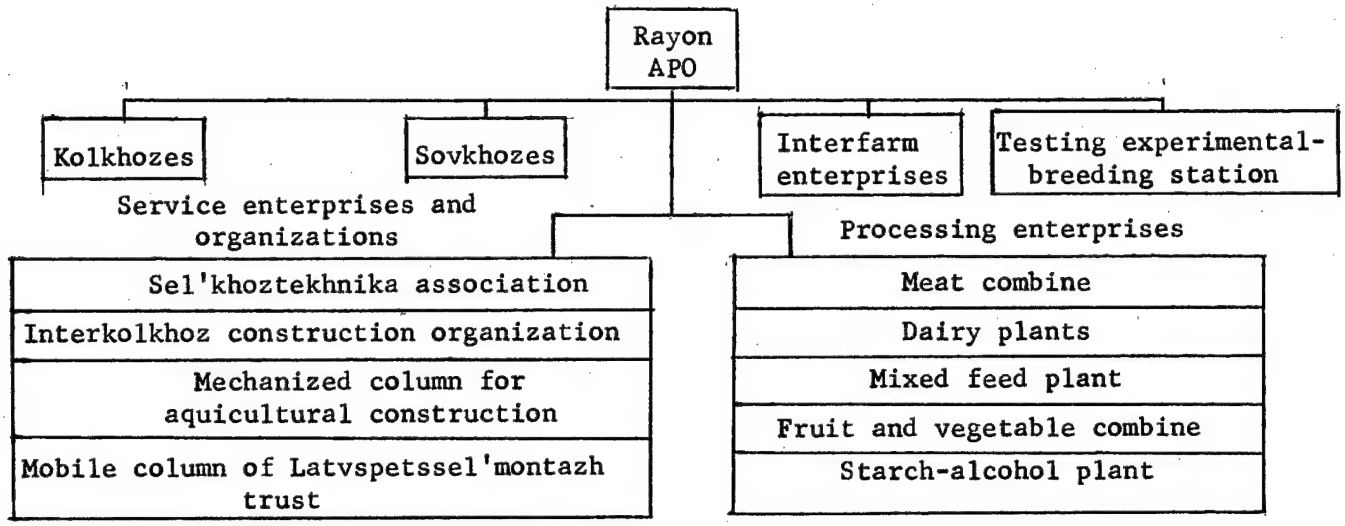
An evaluation of the management conditions -- this serves as the basis when determining the amount of contributions into the centralized funds. Such an indicator is used as a coefficient of management. It is determined using the methods of mathematical analysis. In the process, consideration is given to a qualitative evaluation of the land, the amount of fixed capital at a farm, the availability of manpower, the structure of a farm's branches and the degree to which it is supplied with purchased concentrates and mineral fertilizers.

Consideration of all of these peculiarities makes it possible to calculate the coefficient, which varies for individual kolkhozes and sovkhozes. Thus it will equal the figure two for the Virbi and Lubezere Sovkhozes and for the Tsinya and Tin'gere Kolkhozes and some other economically weak farms -- 0.5. Thus the first group of farms contributes four times more resources to the centralized funds per hectare of cultivated land than do kolkhozes in the second group. The coefficient for evaluating management conditions was developed by scientists and approved by the RAPO council. The fair nature of this indicator was weighed very carefully. Indeed, we are speaking here of a considerable portion of the profit being added to the common pot. And the members of the association are of the same opinion.

For example, the lands of the Virbi Sovkhoz received the highest evaluation in the rayon. The farm was supplied with a large amount of modern equipment, it built facilities for the fattening of large-horned cattle and it is utilizing the cheap waste products of a local alcohol plant. And this is 100 tons of malt residue

daily. The Lubezere Sovkhoz does not have such an opportunity but on the other hand it does have a highly profitable wild animal farm that is maintained mainly on the basis of feed allocated by the state.

Diagram of the Talsinskiy Rayon Agroindustrial Association



Those farms which carry out production operations under comparatively complicated conditions contribute smaller amounts to the centralized funds of the association and yet they obtain considerably more from these funds. The taking into account of the coefficient of management, when forming the centralized funds, smooths out to a considerable degree the operating conditions of the members of the association. Moreover, stronger enterprises are not deprived of their economic initiative: raise the cropping power, increase the weight gains and reduce labor expenditures and feed consumption per unit of output. And then that profit will be returned which one shared with neighbors who were operating under complicated production conditions.

Collectively developed accounting prices for interfarm exchange, approved by the RAPO administration, serve as an important regulator of interrelationships among the farms. Their formation is by no means a simple process. Let us examine that group of farms which is supplied with grain seed by the Kolkhoz imeni Lenin. The kolkhoz supplies the seed to its customers at a price that is considerably lower than the state price. Moreover, the seed is delivered directly in the field. We took into account the fact that the association provided the farm with the means for strengthening seed production and it allocated additional mineral fertilizers. Thus the profit obtained under favorable conditions can be fully shared. Moreover, the profitability of seed production at the kolkhoz remains at a rather high level -- 60 percent. If the yield is increased to 50 quintals per hectare, a figure that is fully attainable, the branch's profitability would double.

Let us examine the work of an interfarm enterprise that is engaged in fattening large-horned cattle. Following the milking period, 11 of our kolkhozes and sovkhozes delivered their calves to the testing experimental station and the Kurzeme Kolkhoz. They specialize in the raising of young stock. From these points the young stock were shipped to the Virbi Sovkhoz for intensive fattening. During all of these stages, computations were carried out among the farms in accordance with the prices established in the associations.

Five farms supply calves to the Kurzeme Kolkhoz for raising. During the last five-year plan, the Kurzeme Kolkhoz purchased calves, following the milking period, at the accounting price established on a collective basis -- 160 rubles per quintal and it fattened them to 250 kilograms. It subsequently sold the animals to the Virbi Sovkhoz at the price of 200 rubles per quintal. Consideration was given to the fact that the weight increases and feed consumption for the various age groups of young large-horned cattle differed. At the Kurzeme Kolkhoz, for example, the production cost for a kilogram of weight increase was 1.6 rubles and at the Virbi Sovkhoz -- 84 kopecks. Yes and the Virbi Sovkhoz can obtain substantial bonuses for a high state of nourishment in the animals.

The use of a coefficient for evaluating economic activity and accounting prices is of assistance in ensuring that the kolkhozes and sovkhozes receive a uniform profit norm per unit of resources consumed. A point of special importance is that fact that these levers ensure advantageous rates of growth at economically weak farms. Whereas income from the sale of products increased an average of 24-25 percent for the rayon as a whole, at economically weak farms this growth was 2-2.5 times higher.

The accounting prices are subject to change. But the prices themselves we retain as a tested means for regulating relationships between kolkhozes and sovkhozes which are cooperating in the carrying out of general farm functions.

We are of the opinion that it is senseless to create councils at interfarm enterprises. We presently have 16 of them. And if each one of these councils convenes and is attended by the leaders of farms and enterprises, a great amount of time is wasted. This is why we decided to limit the relationships between cooperating members to purely monetary computations: produced -- sold.

Our association has entered its second five-year plan. In our opinion, it has convincingly proven the tremendous potential offered at the rayon level, which has undertaken to employ new forms of control.

7026
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OPERATIONS OF ESTONIAN RAPO EXPLAINED, PROBLEMS NOTED

Moscow EKONOMICHESKAYA GAZETA in Russian No 27, Jul 82 p 6

[Article by N. Dudorov: "The Rayon Level of Administration"]

[Text] When a conversation with a kolkhoz chairman, a sovkhoz director or a branch specialist comes around to the difficulties in their work, as a rule, he will talk about the shortage of one kind of machine or fertilizer or another (although this frequently exists) or the lack of normal economic relations with various enterprises and organizations that serve agriculture.

It is no accident that the decree of the CPSU Central Committee and the USSR Council of Ministers, "On Improving Administration of Agriculture and Other Branches of the Agro-Industrial Complex," which was approved by the May (1982) Plenum of the CPSU Central Committee recognizes the need to organize rayon agro-industrial associations. They are called upon to eliminate shortcomings in planning, material and technical supplies, specialization and distribution of production, and to solve the problems of comprehensive development of agriculture more expediently.

At one time such formations were created as an experiment in a number of republics, including the Estonian SSR. I should like to discuss the experience of the agro-industrial association that was created in Rakvereskiy Rayon in Estonia.

Who Entered the Association?

The Rakvereskiy Rayon autonomously financed agro-industrial association was organized in October of 1981. So it is still too early to determine its influence on the results of agricultural production on the kolkhozes and sovkhozes. But a certain amount of experience has already been accumulated here, and it can be utilized in other rayons for creating such associations.

The rayon has the largest area of agricultural land in the republic, ten kolkhozes and fourteen sovkhozes. The main area of production is dairy farming.

In addition to milk, a large quantity of other products is also produced here. Under the Tenth Five-Year Plan the farms sold the state an annual average of 16,800 tons of grain, 30,600 tons of potatoes, 93,400 tons of milk and 26,900 tons of eggs. Under the Eleventh Five-Year Plan it is intended to increase grain sales to 19,600 tons, potatoes--to 35,000 tons, milk--to 104,000 tons, and meat--to 31,000 tons.

A peculiarity of Rakvereskiy Rayon is that the largest enterprises and organizations which are related to agriculture to one degree or another are located on its territory. Have all of them been included in the association?

"Unfortunately," noted the chairman of the Rakvereskiy RAPO [rayon agro-industrial association], Kh. Loyte, "some of the enterprises and organizations are still outside of it. The system of the rayon consumers' union, which has shops in the rural areas, has not entered the association and three alcohol plants which use agricultural raw material and a starch and molasses combine are still separate.

In a word, when creating agro-industrial associations it is apparently necessary to determine in each specific case, taking into account local conditions, the group of enterprises and organizations which can be expediently included in rayon agro-industrial associations. Various departments which have jurisdiction over the corresponding enterprises must display a certain amount of initiative in this.

The RAPO is headed by the association council. It includes managers of all kolkhozes and sovkhozes and the corresponding enterprises and organizations as well as representatives of party, soviet and trade-union agencies of the rayon. The council meets when necessary, but no less frequently than once a quarter. It solves the most varied problems related to the activity of the RAPO. Here they determine the deductions into the centralized funds and make them more precise each year, approve plans for the distribution of material and technical supplies, and consider questions of specialization and distribution of production as well as problems of the rayon's economic and social development.

Formation of Funds

This year a total of 250,000 rubles were allotted for maintaining the association's apparatus, of which 65,000 were contributed by various processing enterprises, Sel'khoztekhnika and organizations, and the rest of the money came from the farms. The norm for deductions from the farms for the maintenance of the administrative staff, which was approved by the association council, is to be in the amount of 2 rubles per one thousand rubles of gross agricultural output.

The association has great possibilities of utilizing economic levers for the development of production in the rayon. The base for the implementation of various measures of an economic and social nature is comprised of four centralized association funds: the fund for the development of production, the fund for social and cultural measures and housing construction, the material incentive fund and the mutual assistance fund.

The policy for the formation and utilization of these funds is determined by provisions on funds that are established by the association council. All kolkhozes and sovkhozes participate in the creation of these funds and farms with dual jurisdiction contribute funds in keeping with agreements with their higher organizations. But the enterprises that serve agriculture do not contribute money to the funds even though they obtain great profits from processing agricultural products and rendering services to the kolkhozes and sovkhozes.

The normative for deductions from the profit of the farms of the rayon are differentiated, based on the objective conditions of production. This work was done by workers of the Institute of Economics of the Estonian SSR Academy of Sciences. When creating the funds they take into account the need for them, the area of cultivated land and the coefficient of the evaluation of the conditions for operation. The amounts of the fund and the policy for their creation and utilization are established by the association council. In 1982 the average norm of deductions from the farms' profit was set in the amount of 10 rubles per hectare of cultivated land.

But association economists think that there is no apparent justification for this and that it is inexpedient to divide farms into groups in terms of the amount of deductions into funds. The fact is that the differences in the expenditures of the farms turn out to be too great. The highest coefficient of conditions for operations was 3.6 and the lowest--0.3, that is, a 12.-fold difference.

But this does not bring about misunderstandings since the farm which is producing more intensively and where the land is more fertile is given more capital investments and technical equipment, and land reclamation is done more extensively. And the existing structure of sold products provides for greater profitability of production.

In 1982 1.2 million rubles were to have been deposited in the association's funds, which is 4.5 percent of the farms' profit last year.

All Must Operate as One

It is naive to think that with the creation of an association everything will immediately improve and there will be no problems in the interrelations among its participants. Since this is something one cannot avoid difficulties. The association includes enterprises and organizations of various departments and therefore there must be a certain change in the psychology of the workers so that they actually become concerned about agriculture and its final results.

Let us note that not all farms of the rayon are directly under the jurisdiction of the association. The Kullaaru Sovkhoz, for example, is in the system of the republic Ministry of the Fruit and Vegetable Industry, the Simuna Sovkhoz is a farm of the Scientific Research Institute of Farming and Land Reclamation, and the Pydrangu and Roela sovkhozes are under the jurisdiction of the administration of the poultry industry of the Estonian SSR Ministry of Agriculture. The planning of the activity of these farms proceeds only along departmental lines. And this in no way contributes to a comprehensive approach to the determination of the main directions of the development of agricultural production on the rayon scale. The decisions of the association council for them become effective only after the appropriate agreement with the higher organization.

It would seem that all farms and enterprises that serve them should operate as one unit and exist primarily for the interests of the entire agro-industrial complex. This does not impede various organizations in carrying out their own tasks.

As we know, planning is the pivot of the economic mechanism. And one must say directly that there has been no radical restructuring in this area.

Let us not speak without evidence. In the association they showed me 46 additions to the plan for economic and social development. Here are some of them. The association must distribute among the farms assignments for how much milk to obtain from each cow with a productivity of 3,000 to 4,000 kilograms--22,000 tons, and from cows with an annual milk yield of 4,000 kilograms and more--24,000 tons. We add them together and we obtain the figure of 46,000 tons. But the association produces a total of 100,000 tons. The remaining 54,000 tons must be obtained from cows with a productivity of less than 3,000 kilograms. But in 1980, for example, there were no farms in the rayon with such average milk yields. And all this was "written off" quarter by quarter.

Sel'khoztekhnika workers are now given bonuses according to indicators of their internal activity. But when the system for awarding bonuses to them is made dependent on the indicators in agriculture, they will undoubtedly have more motivation to advance the economies of the kolkhozes and sovkhozes. It would be expedient for the departments that are involved to develop normative documents regarding this question more rapidly. This problem applies fully to Sel'khozkhimiya as well.

In conclusion one must say that the Rakvereskiy agro-industrial association operates, and fairly successfully, even though not all problems have been solved yet. This shows that to solve them as rapidly as possible and in a well-thought-out way at all levels will contribute to strengthening the new form of administration of agriculture in the rayons and to fulfilling the country's food program.

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SUBSIDIARY FARMS OF INDUSTRIAL ENTERPRISES IN KIROVSKAYA OBLAST

Moscow SEL'SKAYA ZHIZN' in Russian 21 Aug 82 p 2

[Article by P. Orbidan, deputy chairman of the Kirovskaya oblast soviet executive committee, entitled: "The Facotry's Rural Sector"]

[Editorial Report] Secondary farms of industrial enterprises and organizations in Kirovskaya oblast, on the initiative of collectives at the Krasnoyarsk aluminum and machinery plants, are increasing production of various agricultural products.

[Text] In order to fulfill the goals of the USSR Food Program, a large share of responsibilities should rest with local soviets of people's deputies. This includes giving assistance to the subsidiary farms of plants, factories, and other enterprises and organizations to increase the production of agricultural products and to strengthen the material and technical base for these farms.

The Kirovskaya oblast soviet executive committee, carrying out its obligations in this area, has acted on the important decree of the CPSU Central Committee and the USSR Council of Ministers entitled "Subsidiary Farms of Enterprises, Organizations and Institutions." The ispolkom has exercised control over some of the proposals put forth in this decree.

We note with a great deal of pleasure that collectives from these subsidiary farms, which are subordinate to the enterprise, are themselves finding ways to increase production. Following the example of collectives from the Krasnoyarsk aluminum and machinery building plants, they are reexamining their obligations with a view toward shortening work periods and increasing the volume of work on these auxiliary farms. The oblispolkom recently examined the issue of development of the oblast's subsidiary farms, run by enterprises and organizations, for the period up until 1990 and undertook corrective measures. We are glad that plant managers of many industrial enterprises consider the development of subsidiary farms a vital component of the industrial program, an important condition for the social and economic growth of the enterprise, and a means of securing qualified personnel.

The work experience of the subsidiary farm of the Electrical Machine Building Association imeni Lepse is instructive. Almost 1,500 hectares of land are being used, 500 of which are ploughed fields; the returns have been

substantial. Their own feed is used for the large herd as are 1,500 tons of food wastes. Last year the following amounts of food products went toward communal feeding of the association's workers and employees: 300 tons of potatoes, 30 tons of vegetables, 200 tons of meat and almost 400 tons of milk. Their own products will soon make up one-third of the total amount of food products.

The same amount of food, even more of meat and milk, is supplied by the subsidiary farm of the Machine Building Association imeni 20th Party Congress. The reason is the following: during the past five-year plan more than R800,000 were invested for its development. The agricultural sector of the association became an equal partner with the production sector. The trade union keeps scores for competition, encouraging the farm workers. And they deserve praise: the daily weight gain for young cattle is one kg, and each of the 150 cows gives three tons of milk per year. We must also note the following: all production is attained from their own feed, from intensive cultivation of the lands they have worked. A high level of agricultural technology allows them to maintain a complete inventory of agricultural implements; the fields also receive the necessary amounts of mineral fertilizers. The following construction projects are to be completed before the end of the five-year plan: a feeder for 1,200 pigs, a feed processor with a capacity of 30 tons per day, a vegetable storage bin, a garage and service structures. The volume of work is a considerable amount, but the collective has a fighting spirit. They understand that creating the most productive conditions for the "green sector" will turn into fresh vegetables, meat and milk.

The subsidiary farm of the silica brick factory's collective in Orichevskiy rayon is developing quite well. Here some 500 hectares of fallow land were used, and another 100 are being looked for. The returns on the farm are large: enough meat is produced for 40 kg per worker, while the cafeteria and children's institutions receive more than 100 tons of milk each year. In addition, piglets are sold to the workers in the town.

The experience of many collectives of subsidiary farms shows that work goes well where the atmosphere is good for its workers, where those at the factory and on the farm can work in harmony.

Many subsidiary farms are still in the process of development, others are well developed, while still others demand constant attention and have many problems. Bureaus of the oblast party committee and of the oblast soviet executive committee are trying to respond to the problems that keep coming up.

An inner-departmental council has been created for operating decisions; here are representatives of the oblast planning commission, the oblast Agricultural Equipment Association, "Sel'khozkhimiya," the oblast agricultural production administration. Such a council can deal with questions of development and improvement of subsidiary farms. Rayon party committees and rayon soviet executive committees help them look for land, select management and specialized personnel, and procure machinery.

The work experience of Verkhnekamskiy rayon is instructive in this area. In the course of three years subsidiary agricultural sectors and farms were established at all industrial enterprises, organizations and institutions. Last year they produced 440 tons of pork (live weight). This is five to seven times more than in such densely populated rayons as Kirovo-Chepetsky and Vyatsko-Polyanskiy, although they have many more opportunities for the development of the "green sector" than does Verkhnekamye.

And it is these rayons that every one is trying to emulate; all the necessary experience is located there. The subsidiary farm of the Vyatsko-Polyanskiy machine plant received its land in November of 1980. In the following spring this land was included in the crop rotation. At the same time farm buildings were put up, pigs were obtained, feed was prepared. And the result is the following: during that year they produced 50 quintals of meat and 1,500 quintals of milk. This year the amount of food produced will increase five to seven times; by the end of the five-year plan they hope to produce almost 2,000 quintals of meat. The plant is to invest more than R400,000 in the agricultural sector each year, this to ensure the necessary material and technical basis. The workers of Krasnoyarsk have taken the initiative to increase the amount of fertilizer produced for the government.

Much, therefore, has been done for the development and improvement of subsidiary farms; almost 200 enterprises and organizations have them already. During the past year the number of cattle on these farms increased by 14 percent, the number of cows alone by seven percent. More than 4,000 tons of both meat and milk were produced, a million eggs and almost 30,000 piglets. Indices are good, although the demands of worker collectives still remain unsatisfied.

It is also clear that the oblast soviet executive committee is not demanding enough toward all enterprise directors; some major departments poorly support local initiative. The Novovyatskiy machinery works, for example, was allotted land toward the end of 1980 by the RSFSR Council of Ministers in order to set up its subsidiary farm. The plant's director, comrade Litsarev, has still not taken the necessary steps for its organization. The director of the industrial complex "Iskozh," comrade Vagin, is acting in the same passive manner toward his complex's "green sector." The complex received its land a year and a half ago; however, not a hundredth part of it is being used. We cannot praise the indecisiveness of collectives from the Novoyatskiy ski works and from the wood-fiber panel complex. Not "far behind" them is the director of the industry's largest tire plant, the Kirov works, comrade Vorobyev, who for two years has made nothing but promises. And, of course, it is impossible to rest easy with such backward views.

Several directors want to receive plots of land at such a distance that they can be seen from the office window. Such a possibility has not existed for a long time. The large potential of enterprises must be used for the development of new land tracts, the laying of roads and the building of settlements.

The oblast soviet executive committee must educate such directors on the basis of local experience. One often hears complaints about the lack of

personnel for subsidiary farms. In this same Verkhnekamskiy rayon a special collective effort has been widely used. Structures for animals are built near the main factory, while field camps are built in areas at a greater distance. Here workers set up the necessary living arrangements.

Development of the network and an increase in the efficiency of the oblast's subsidiary farms will permit the production of agricultural products to double by the end of the five-year plan. But for this to happen, a more active role must be played by such partners as the State Committee for Agricultural Equipment Associations, "Soyuzsel'khozkhimiya," land improvement organizations and others. They must all together concern themselves with the development and improvement of subsidiary farms and increase their contribution toward resolution of the Food Program's goals.

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TILLING AND CROPPING TECHNOLOGY

PREPARING SOIL FOR WINTER GRAIN CROPS IN NONCHERNOZEM ZONE

Moscow SEL'SKAYA ZHIZN' in Russian 20 Aug 82 p 2

/Article: "Agrotechnology and Harvest of Winter Crops"; material prepared by scientific workers and specialists of the USSR Ministry of Agriculture and the All-Union Academy of Agricultural Sciences imeni V. I. Lenin/

/Text/ A prompt and rapid sowing of winter crops in the nonchernozem zone is of special importance. They occupy more than 40 percent of the area in the structure of grain crops and determine the general level of the yield and gross output of grain. However, the conditions for their cultivation in the zone are quite harsh. There is a shortage of favorable predecessors owing to the short vegetative period, especially in northern oblasts, the length of the optimum sowing time is only 5 to 7 days and the gathering of the harvest and the sowing of winter crops often coincide. Under these conditions there is a need for an efficient organization in the preparation of soil and sowing.

However, when scientifically substantiated technologies of cultivation are observed, winter rye and wheat varieties regionalized here stably exceed spring grain crops in their yield, producing up to 40 or 50 quintals of grain per hectare. The advantage of winter crops over spring crops is especially perceptibly manifested during dry years.

As is well known, fodder crops are the main predecessors of winter crops in the zone. In connection with this an interconnection between the rates of feed procurement and soil preparation for winter crops is observed clearly. For example, on the Uvarovskiy 2 Sovkhoz in Mozhayskiy Rayon, Moscow Oblast, where feed is procured efficiently and rapidly, more than one-half of the areas for the sowing of winter crops have already been prepared at the beginning of August. The fields where they are placed after perennial grass and occupied fallow have already been plowed and fertilized on the Sovkhoz imeni 50-Letiya SSSR in Naro-Fominskiy Rayon as well. At the same time, most of the farms in the zone lag behind in soil preparation, especially in Bryansk, Ivanovo and Yaroslavl Oblasts.

The conditions for winter sowing are now not easy in the nonchernozem zone. The prolonged spring has postponed the sowing time and the ripening of fallow occupying and other crops, the frequent rain delays the harvesting of fodder crops and fields are vacated and soil is prepared for winter crops more slowly. On the other hand, the good moistening of soil contributes to its better dressing during cultivation and to the development of good sprouts and creates fairly good prerequisites for an expansion of areas under winter crops provided sowing takes place at the optimum time.

This year rainfall has contributed to the formation of a high harvest of predecessors of winter crops and to a considerable removal of nutrient elements from soil. Therefore, much attention should be paid to the application of fertilizers before the sowing of winter crops.

The placement of winter crops after such predecessors as perennial grass, vetch-oats and peas-oats mixtures, early silage crops and early potatoes is one of the conditions for their high productivity. After grain predecessors winter crops can be sown only on well-cultivated soil and when no less than 30 to 40 tons of organic fertilizers per hectare are applied to this predecessor or directly to winter crops. Winter crops should not be sown after barley if it is placed after grain crops. After them winter rye can be sown at a smaller risk, because wheat is affected more severely by root rots.

A prompt and high-quality preparation of soil is of decisive importance for a good development of plants in fall and their successful wintering. Soil cultivation methods may change depending on the predecessor crop and weather conditions, but in any case soil should be well dressed, leveled out, packed and cleaned of weeds. It should have a sufficient reserve of moisture and nutrients.

When winter crops are placed after perennial grass, furrow plowing should not be delayed, because this leads to the dessication of soil and the formation of lumps. As a result, the conditions for sowing and for the appearance of sprouts are worsened. In the experiments of the Scientific Research Institute of Agriculture of the Central Regions of the Nonchernozem Zone the yield of the Voskhod-1 winter rye, when sown along a clover-timothy furrow plowed early, on the average, in 3 years totaled 35.4 quintals and, plowed late, 6 quintals less. Early furrow plowing is also necessary, because freshly plowed soil remains toxic for the sprouts of winter crops for 2 to 3 weeks.

When vetch-oats, peas-oats and other "soft" predecessors are harvested early, plowing with packing is considered the best cultivation. It makes it possible to more effectively control perennial and annual weeds and to accumulate and retain more moisture in soil. When these predecessors are harvested late, surface cultivation with heavy disk harrows immediately after the harvesting of the predecessor with subsequent soil cultivation at the disk depth is more effective. After early potatoes surface field cultivation with cultivators instead of plowing is advisable.

In the current year the harvesting of grain predecessors, in practice, coincides with the beginning of the optimum time of sowing of winter crops. Under these conditions it is better to replace plowing with shallow soil cultivation with disk or share implements. The practice of presowing soil cultivation is well known. It consists of cultivation and packing with ring-crowfoot rollers or instead of this cultivation with RVK-3, VIP-5,6 and other combined implements is carried out on the day of winter crop sowing.

The level of soil fertility in the nonchernozem zone requires a systematic application of organic and mineral fertilizers and acid soil needs periodic liming here. The highest yield of winter crops is attained on well-fertilized soil.

On soil with such a level of soil fertility it is possible to plan (with an appropriate application of fertilizers) a yield, which regionalized varieties can produce, that is, of no less than 45 to 50 quintals per hectare.

When fertility indicators are less favorable, of course, the level of the planned yield will be lower and is envisaged with due regard for the highest grain yields on such soil attained on a farm. Only if it is further cultivated is it possible to plan and obtain a higher yield. It is sharply increased by the application of 40 to 60 tons of well-prepared organic fertilizers per hectare.

To establish fertilizer doses, the characteristics of predecessors are taken into consideration, because the provision of soil with nutrient elements during the fall period--this crucial period of formation of winterhardiness of plants and their productivity--depends on them to a significant extent.

On farms in the nonchernozem zone the entire dose of nitrogen fertilizers designed for winter crops is still often applied during the period of spring and summer topdressing of crops regardless of the level of soil fertility and predecessors. This is a serious error, which, unfortunately, is frequently made in the agrotechnology of winter crops. The investigations of the Scientific Research Institute of Agriculture of the Central Regions of the Nonchernozem Zone are instructive in this respect. In the institute's experiments by the time of the sowing of winter crops in the arable layer of medium-cultivated soddy-podzolic soil capable of yielding 35 to 40 quintals of grain per hectare a more or less favorable provision with nitrogen was noted when winter crops were placed along an early plowed clover-timothy furrow. Vetch-oats fallow and, especially, cereal grass and grain predecessors did not provide crops with nitrogen. After all, in fall winter rye consumes up to 48 kg of nitrogen per hectare and wheat, 32 kg. Therefore, to obtain high harvests of winter crops, it is necessary to apply nitrogen fertilizers even before sowing. Clover fallow, cultivated fallow well fertilized with organic fertilizers and clean fertilized fallow, where the provision of winter crops with nitrogen in fall is higher, are exceptions.

In the experiments of the same institute on well-cultivated soddy-podzolic loamy soil, on the average, in 3 years the harvest of winter rye without fertilizers totaled 37.2 quintals and the maximum grain yield was obtained when 120 kg of nitrogen, 60 kg of phosphoric oxide and 90 kg of potassium oxide per hectare were applied. The highest yield--45.6 quintals per hectare--was obtained when 60 kg of nitrogen were applied before sowing and 60 kg, in spring as topdressing. When the entire dose (120 kg of nitrogen) was applied as topdressing in spring, the yield totaled 40.2 quintals. Similar results were also obtained in experiments with winter wheat.

Investigations make it possible to recommend the most efficient fertilizer system for winter rye and wheat. It is better to apply fertilizers in terms of the planned yield with due regard for soil fertility and the nature of predecessors and needs of plants. It is better to apply the entire dose of phosphorus fertilizers (with the exception of a small part of granulated superphosphate placed in rows during sowing) and potassium fertilizers, as well as organic ones, before sowing and nitrogen fertilizers--in crushed form--before sowing and as topdressing.

Winter wheat plants forming two or three stems by wintering and rye plants, three to four stems, winter best in the nonchernozem zone. To attain such a growth, regionalized varieties need 480 degrees of accumulated mean daily above-zero temperatures. The sowing time is established with due regard for this. On the average, the period from 20 August through 4 September is optimal for the northern oblasts of the Central Economic Region and from 25 August through 5 September, for its southern oblasts. The second half of August is the optimum period in the Volgo-Vyatka Economic Region, the end of the first 10-day period and the second 10-day period in August, in the north of the North-West Economic Region and the third 10-day period of August, in its other oblasts. In Belorussia depending on the rayon the best sowing time is from 25 August through 10 September.

The wintering and yield of winter crops largely depend on the quality of seeds. It is necessary to fully utilize the available high-grade seeds of last year's harvest for sowing. It is advisable to subject freshly harvested seeds to air-thermal heating and drying in floor dryers with active ventilation. The moisture of freshly harvested seeds must not be above 16 to 17 percent. This sharply increases their sowing qualities.

Much attention must be paid to the maximum expansion of areas under the Zarya and Akhtyrchanka winter wheat varieties and the Chulpan, Voskhod-1 and Voskhod-2 rye varieties newly regionalized in the zone.

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